THE UNITED REPUBLIC OF TANZANIA

NATIONAL EXAMINATION COUNCIL OF TANZANIA

FORM TWO NATIONAL ASSESSMENT

013 **GEOGRAPHY**

Time: 2:30 Hours **ANSWERS** **Tuesday, 12th November2019.**

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

(i) One characteristic of equatorial climate is
A. Low rainfall.
B. Moderate temperature.
C. Low humidity.
D. Thick forest.
Answer: D. Thick forest.
Equatorial climates are characterized by high temperatures and heavy rainfall throughout the year, leading to the development of dense, lush forests.

(ii) The direction to which compass needles point is called
A. Magnetic north.
B. True north.
C. Grid north.
D. Compass bearing.
Answer: A. Magnetic north.
A compass needle aligns itself with the Earth's magnetic field, pointing towards the magnetic north pole.

(iii) Cultivation of cash crops based on application of advanced technology is called
A. Subsistence agriculture.
B. Large scale agriculture.
C. Mixed system agriculture.
D. Small scale agriculture.
Answer: B. Large scale agriculture.
This involves the production of crops intended for sale, utilizing advanced technology to enhance productivity.

(iv) The condition of the atmosphere recorded for a short period of time is known as
A. Climate.
B. Rainfall.
C. Weather.
D. Temperature.
Answer: C. Weather.
Weather refers to the atmospheric conditions, such as temperature, humidity, and precipitation, observed over short durations.

(v) The four seasons of the year are a result of
A. Rotation of the earth.
B. Lunar eclipse.
C. Revolution of the earth.

D. Solar eclipse.
Answer: C. Revolution of the earth.
The Earth's orbit around the Sun, combined with its axial tilt, leads to the cyclical changes known as seasons.

(vi) The seasonal movement of herdsmen between lowlands and highlands in search of water and pasture is known as
A. Transhumance.
B. Hunting.
C. Pastoralism.
D. Agriculture.
Answer: A. Transhumance.
This term describes the practice of moving livestock between grazing grounds in different seasons.

(vii) When does the summer solstice in the southern hemisphere occur?
A. 21st June.
B. 23rd September.
C. 21st September.
D. 22nd December.
Answer: D. 22nd December.
In the southern hemisphere, the summer solstice, marking the longest day of the year, occurs around December 22nd.

(viii) A feature formed as a result of a long and fairly narrow stretch of land that extends through plains, hills, or mountains is called
A. Basin.
B. Plateau.
C. Valley.
D. Depression.
Answer: C. Valley.
Valleys are elongated low areas often situated between hills or mountains, typically with a river running through them.

(ix) The winds which blow from the sea to land is called
A. Wind breeze.
B. Sea breeze.
C. Land breeze.
D. Ocean current.
Answer: B. Sea breeze.
Sea breezes occur due to temperature differences between the land and sea, causing cooler air from the sea to move inland.

(x) The time increases by 4 minutes for every 1° of longitude when one travels from
A. North to South.
B. East to South.
C. West to South.
D. West to East.
Answer: D. West to East.
As one travels eastward, time advances by 4 minutes for each degree of longitude due to the Earth's rotation.

2. Match the items in List A with responses in List B by writing the letter of the correct response below the corresponding item number in the table provided.

List A
(i) Moons of the planets.
(ii) Pieces of hard matter falling from outer space.
(iii) Natural satellites of the earth.
(iv) The centre of the solar system.
(v) Heavenly body that possesses and transmits its own light.

List B
A. Star
B. Mars
C. Satellite
D. Meteors
E. Sun
F. Comets
G. Moon

Answers:
List A: (i) C (ii) D (iii) G (iv) E (v) A

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) Rain gauge is an instrument used to measure the amount of rainfall.
True.
A rain gauge collects and measures the amount of liquid precipitation over a set period.

(ii) Crust is the innermost part of the earth.
False.
The Earth's innermost part is the core; the crust is its outermost layer.

(iii) Block mountains are formed by prolonged denudation.

False.
Block mountains form due to tectonic forces causing large areas of the Earth's crust to uplift, not by denudation.

(iv) Moon is among the bodies that move in space relative to one another.
True.
The Moon orbits the Earth and moves through space relative to other celestial bodies.

(v) Hydrological cycle is a continuous circulation of water from the earth’s surface to the atmosphere.
True.
The hydrological cycle describes the continuous movement of water on, above, and below the Earth's surface.

(vi) Wind is air in motion from low pressure to high pressure area.
False.
Wind moves from areas of high pressure to areas of low pressure.
(vii) Tourism can affect negatively the culture of the host countries.
True.
Tourism can lead to cultural erosion and commercialization in host countries.

(viii) The side of the mountain facing the direction of the wind is known as the leeward side.
False.
The side facing the wind is the windward side; the leeward side is sheltered from the wind.

(ix) Capital is the only determining factor to improve small scale agriculture in Tanzania.
False.
Other factors, such as access to technology, education, and markets, also play crucial roles.

(x) Scale of the map is the ratio between the distance on the map and the actual distance on the ground.
True.
The scale of a map represents the relationship between distances on the map and actual distances on the ground.

4. (a) Outline five economic resources which are obtained from water bodies.
(i) Fish and seafood products.
(ii) Hydropower energy.
(iii) Salt extraction.
(iv) Tourism and recreation.
(v) Water for agriculture and irrigation.

(b) Mention five ways of conserving water resources.
(i) Implementing water recycling and reuse systems.
(ii) Protecting water catchment areas.

(iii) Planting trees and preventing deforestation.
(iv) Controlling industrial and agricultural pollutants.
(v) Educating the public on water-saving practices.

(c) List five major means of transport on land.
(i) Road transport.
(ii) Rail transport.
(iii) Pipeline transport.
(iv) Animal-drawn carts.
(v) Bicycle and motorbike transport.

5. (a) Giving one example, briefly explain the four main categories of mountains.
(i) Fold Mountains: Formed by the folding of the Earth's crust due to compressional forces, e.g., the Himalayas.
(ii) Block Mountains: Created when large areas of the Earth's crust are lifted or tilted along fault lines, e.g., the Sierra Nevada.
(iii) Volcanic Mountains: Formed due to volcanic activity, e.g., Mount Kilimanjaro.
(iv) Residual Mountains: Formed due to prolonged erosion, leaving harder rocks standing, e.g., the Aravalli Hills.
(b) (i) Briefly explain the formation of rift valleys.
Rift valleys are formed when the Earth's crust is stretched and pulled apart, creating a series of faults. Sections of the crust sink between parallel faults, forming a valley. This process is associated with tectonic plate movements.

(ii) List five rift valley lakes in East Africa.
- Lake Tanganyika
- Lake Malawi
- Lake Turkana
- Lake Albert
- Lake Edward

6. (a) Outline four features of a Linear Scale.

A linear scale, also known as a bar scale or graphical scale, is a visual representation of distance on a map. Its key features include:

- Proportional Representation: The linear scale visually represents the relationship between map distances and real-world distances, maintaining proportionality even if the map is resized.

- Segmented Divisions: It consists of a straight line divided into equal segments, each labeled with corresponding ground distances (e.g., kilometers or miles), facilitating straightforward distance measurement.

- Dual Measurements: Some linear scales provide measurements in multiple units, such as both feet and meters, enhancing versatility for users familiar with different measurement systems.

- Scalability: Unlike other scale types, a linear scale remains accurate even when the map is enlarged or reduced, as the scale enlarges or reduces along with the map, preserving the proportional relationship.

(b) Briefly describe five essentials of a map.

A well-constructed map includes several essential elements to ensure clarity and usability:

- Title: Indicates the purpose or theme of the map, providing immediate context to the viewer about the area depicted and the information presented.

- Scale: Shows the relationship between distances on the map and actual distances on the ground, enabling users to measure real-world distances accurately. This can be represented as a linear scale, ratio, or verbal statement.

- Legend (Key): Explains the symbols, colors, and patterns used on the map, allowing users to interpret the represented data correctly.

- 4. Compass Rose (Direction Indicator): Illustrates the cardinal directions (North, South, East, West), assisting users in orienting the map relative to the real world.

- 5. Grid and Index: A grid system, often composed of latitude and longitude lines or alphanumeric coordinates, helps in precisely locating features on the map. The index lists place names or features along with their grid coordinates, facilitating easy reference.

(c) the symbol used to show the following geographical features on maps.

- Depression: On topographic maps, a depression is depicted by closed contour lines with hachure marks (short lines) on the inside, indicating a decrease in elevation toward the center.

- Seasonal Swamp: This feature is often represented by a combination of symbols: a blue or green shaded area (indicating water or vegetation) with intermittent or dashed lines, suggesting that the area is not permanently filled with water. Additionally, a symbol resembling a marsh or swamp (such as a line with perpendicular ticks) may be used to denote wetland characteristics.

These standardized symbols help map readers quickly identify and understand various geographical features.

7. Differences Between Heavy Industries and Light Industries

Industries are broadly categorized into heavy and light industries based on factors such as the nature of their products, capital investment, resource consumption, environmental impact, and infrastructure requirements. The key differences between these two types of industries are:

- Nature of Products:
  Heavy industries produce large, heavy products or machinery used as inputs for other industries. Examples include shipbuilding, steel production, and industrial machinery manufacturing. Light industries manufacture smaller consumer goods intended for direct use by end-users, such as electronics, clothing, and household appliances.

- Capital Investment:
  Heavy industries require substantial capital investment due to the need for large-scale machinery, extensive facilities, and significant infrastructure. Light industries involve lower capital investment, utilizing smaller machinery and facilities, leading to reduced overhead costs.

- Resource Consumption:
  Heavy industries consume large quantities of raw materials, energy, and water, reflecting their intensive production processes. Light industries use comparatively fewer resources, aligning with their less intensive manufacturing processes.

- Environmental Impact:
  Heavy industries often have a significant environmental footprint, including higher emissions and waste generation, necessitating stringent environmental regulations. Light industries generally have a smaller environmental impact, producing less pollution and waste.

- Infrastructure Requirements:
  Heavy industries depend on robust infrastructure, including specialized transportation networks like railways and ports, to handle large products and raw materials. Light industries require less specialized infrastructure, often benefiting from proximity to urban centers for efficient distribution to consumers.

Understanding these distinctions is crucial for policymakers and investors when making decisions related to industrial development and economic planning.

8. Advantages of Natural Gas Production in Tanzania

Tanzania's natural gas sector has experienced significant growth, offering several advantages to the nation's economy and development:

- Economic Growth:
  The exploitation of natural gas resources has attracted foreign investment, generated revenue, and stimulated economic activities, contributing to Tanzania's GDP growth.

- Employment Opportunities:
  The natural gas industry has created jobs in exploration, production, and related services, reducing unemployment and enhancing skill development among the local workforce.

- Energy Security:
  Utilizing domestic natural gas resources has reduced dependence on imported fuels, ensuring a more stable and secure energy supply for the country.

- Industrial Development:
  Natural gas serves as a feedstock for various industries, including fertilizers and petrochemicals, fostering industrialization and diversification of the economy.

- Environmental Benefits:
  Natural gas is a cleaner-burning fossil fuel compared to coal and oil, leading to reduced greenhouse gas emissions and contributing to environmental conservation efforts.

These advantages underscore the strategic importance of natural gas in Tanzania's pursuit of sustainable development and economic prosperity.

9. Advantages of the Tourism Industry in Tanzania

Tanzania's tourism industry plays a pivotal role in the nation's socio-economic development, offering several benefits:

- Foreign Exchange Earnings:
  Tourism is a major source of foreign currency, enhancing the country's balance of payments and enabling the importation of essential goods and services.

- Employment Creation:
  The sector provides direct and indirect employment opportunities in areas such as hospitality, transportation, and tour operations, improving livelihoods.

- Infrastructure Development:

Tourism demand has led to the development of infrastructure like roads, airports, and communication networks, benefiting both tourists and local communities.

- Cultural Exchange:
  Interactions between tourists and local communities promote cultural understanding and preserve traditional practices and heritage.

- Conservation Efforts:
  Revenue from tourism supports the conservation of national parks and wildlife reserves, ensuring the protection of biodiversity and natural habitats.

The tourism industry's multifaceted advantages make it a cornerstone of Tanzania's economic and social landscape.

10. Problems Facing Cash Crop Production in Tanzania

Despite its significance, cash crop production in Tanzania encounters several challenges:

- Climate Change:
  Unpredictable weather patterns, including droughts and floods, adversely affect crop yields and quality, posing risks to farmers' incomes.

- Limited Access to Credit:
  Smallholder farmers often face difficulties in obtaining financial services, hindering their ability to invest in quality inputs and modern farming techniques.

- Inadequate Infrastructure:
  Poor transportation networks impede the efficient movement of goods from farms to markets, leading to post-harvest losses and reduced profitability.

- Pest and Disease Outbreaks:
  Infestations can devastate crops, and limited access to effective pest control measures exacerbates the problem.

- Market Price Volatility:
  Fluctuations in global commodity prices expose farmers to income instability, affecting their livelihoods and investment capacity.

Addressing these issues is essential to enhance the productivity and sustainability of cash crop farming in Tanzania.