THE UNITED REPUBLIC OF TANZANIA

NATIONAL EXAMINATION COUNCIL OF TANZANIA

FORM TWO NATIONAL ASSESSMENT

013 **GEOGRAPHY**

Time: 2:30 Hours **ANSWERS** **Monday, 14th November 2016.**

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) Lines drawn on a map joining different places with the same pressure are called
A. Isohyets
B. Isobar
C. Isotherms
D. Latitude
Answer: B (Isobar)
Reason: Isobars are lines on a weather map that connect points of equal atmospheric pressure, often used to predict weather patterns.

(ii) The type of tourism which deals with visiting unaltered natural environment such as national parks, game reserves, coral reefs, forests, and mountains in general can be termed as
A. Domestic tourism
B. Preserved tourism
C. Ecotourism
D. Historical sites
Answer: C (Ecotourism)
Reason: Ecotourism focuses on responsible travel to natural areas, conserving the environment and improving the well-being of local people.

(iii) The following were the primary aims of establishing Tennessee Valley Authority except
A. Conserving soil
B. Controlling flood
C. Providing electricity
D. Influencing plantation
Answer: D (Influencing plantation)
Reason: The Tennessee Valley Authority (TVA) was created to address issues such as flooding, electricity generation, and soil conservation, not plantation development.

(iv) The place where mineral salts are found in Tanzania is
A. Vituvia
B. Mwadui
C. Songosongo
D. Kiwira
Answer: B (Mwadui)
Reason: Mwadui is famous for its diamond mine, which also contains traces of mineral salts.

(v) Which one of the following is the characteristic of water bodies?
A. Gain heat and loses it equally as the landmass
B. Lose heat and gains it quickly than landmass
C. Gain heat slowly and loses it quickly than landmass

D. Gain heat slowly and loses it more slowly than landmass
Answer: D (Gain heat slowly and loses it more slowly than landmass)
Reason: Water bodies have a high specific heat capacity, allowing them to heat and cool more slowly compared to land.

(vi) Which one of the following are the fold mountains?
A. Himalaya, Black Forest, Andes, and Cape Ranges
B. Cape Ranges, Andes, Himalaya, and Appalachians
C. Rockies, Andes, Alps, and Atlas
D. Ruwenzori, Rockies, Vosges, and Himalaya
Answer: C (Rockies, Andes, Alps, and Atlas)
Reason: Fold mountains are formed by the collision of tectonic plates, and these are some of the most well-known examples globally.

(vii) A great circle refers to
A. The Equator
B. A line of longitude
C. A circle on a globe
D. The distance of the globe
Answer: A (The Equator)
Reason: A great circle is the largest circle that can be drawn on a sphere, dividing it into two equal halves; the Equator is an example of a great circle.

(viii) A feature formed as a result of either natural or artificial depression varying in size in the earth's surface is called
A. Island arc
B. Fold mountain
C. Rift valley
D. Basin
Answer: D (Basin)
Reason: A basin is a low-lying area where water or sediments accumulate, either naturally or artificially.

(ix) Which one among the following sentences describes a longitude?
A. Angular distance North or South of the Equator measured in degrees
B. Angular distance East and South of the Equator measured in degrees
C. Angular distance measured in degrees east or west of the Prime Meridian
D. Angular distance measured in degrees South and North of the Equator
Answer: C (Angular distance measured in degrees east or west of the Prime Meridian)
Reason: Longitude measures the angular distance of a point on Earth east or west of the Prime Meridian.

(x) Which one of the following resources are non-renewable?
A. Biogas, Oil, and Wind
B. Geo-thermal, Hydroelectricity, and Biogas
C. Oil, Coal, and Gas
D. Coal, Gas, and Wind
Answer: C (Oil, Coal, and Gas)
Reason: Oil, coal, and gas are fossil fuels that take millions of years to form and are not replenished on a human timescale, making them non-renewable resources.

2. Match the items 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 deposition of moisture from the atmosphere on the Earth's surface.
(ii) A factor affecting temperature of a place.
(iii) The hotness and coldness of a place or an object.
(iv) The Sun's rays that reach the surface of Earth.
(v) A common form of precipitation falling from the atmosphere.
(vi) A day-to-day condition of the atmosphere of a place.
(vii) The state of crystals deposited on objects due to condensation.
(viii) The state of the atmosphere in relation to the amount of water vapour it contains.
(ix) Tiny water droplets suspended immediately above the ground.
(x) A prediction of weather condition of a particular place at a given time.

List B
A. Weather forecasting
B. Rainfall
C. Frost
D. Sunrise
E. Humidity
F. Temperature
G. Weather station
H. Mist
I. Weather
J. Precipitation
K. Aspect
L. Sunshine

Answers:

i	ii	iii	iv	v	vi	vii	vii	ix	x
J	K	F	L	B	I	C	E	H	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) A dormant volcano is one that still experiences periodic eruptions.
FALSE
A dormant volcano is currently inactive and not erupting but has the potential to erupt in the future.

(ii) The rotation of the earth results in four seasons of a year.
FALSE
The tilt of the Earth's axis and its orbit around the Sun cause the four seasons, not its rotation.

(iii) Any circle which divides a globe into hemispheres is known as a great circle.
TRUE
A great circle divides the globe into two equal hemispheres.

(iv) The energy produced due to the movement of water is tidal energy.
TRUE
Tidal energy is generated by the movement of water due to tides.

(v) The surface of the earth has two main features that are water bodies and land.
TRUE
Earth's surface comprises land and water bodies.

(vi) Transportation does not involve movement of people and goods from one place to another.
FALSE
Transportation involves moving people and goods between locations.

(vii) Rainfall, wells, springs, rivers, lakes, sea, and ocean in one word are called the hydrological circle.
FALSE
The correct term is the hydrological cycle, encompassing all forms of water movement and storage.

(viii) Alluvial mining involves extracting minerals which usually occur deep in the earth's surface.
FALSE
Alluvial mining extracts minerals from surface sediments, not deep underground.

(ix) The solar system consists of the sun and its planets.
TRUE
The solar system includes the Sun and its orbiting planets.

(x) Continental shelf, continental slope, deep sea plain, ocean ridges, and ocean trenches are features of the ocean floor.
TRUE
These are all features found on the ocean floor.

4. (a) Mention five features of the ocean floor.

(i) Continental Shelf
(ii) Continental Slope
(iii) Abyssal Plain
(iv) Mid-Ocean Ridge
(v) Ocean Trench

(b) Name the five largest oceans in the world.

(i) Pacific Ocean
(ii) Atlantic Ocean
(iii) Indian Ocean
(iv) Southern (or Antarctic) Ocean
(v) Arctic Ocean

(c) Mention five largest lakes in the world.

(i) Caspian Sea
(ii) Lake Superior
(iii) Lake Victoria
(iv) Lake Huron
(v) Lake Michigan

(d) Differentiate the following terms.

(i) Temperature and humidity.
Temperature measures how hot or cold an object or environment is, while humidity refers to the amount of water vapor present in the air.

(ii) Minimum and maximum thermometer.
A minimum thermometer records the lowest temperature over a period, whereas a maximum thermometer records the highest temperature during that time.

(iii) Pressure and wind.
Pressure is the force exerted by the atmosphere on a surface area, while wind is the movement of air from high-pressure to low-pressure areas.

5. (a) Convert.

(i) 1:50,000 into statement scales.
1 cm represents 0.5 km
1:50,000 means 1 cm on the map equals 50,000 cm on the ground. Converting to kilometers: 50,000 cm = 0.5 km.

(ii) 1 cm to 4.57 km into representative fraction scales.
1:457,000
In representative fraction scales, 1 cm on the map equals 4.57 km on the ground. Convert kilometers to centimeters: 4.57 km = 457,000 cm, resulting in 1:457,000.

(iii) If the map distance of a certain river on a topographical map is 15 centimeters, calculate the actual ground distance of that river in kilometers given map scale is 1:50,000.
7.5 km
Multiply the map distance by the scale factor to get the ground distance: 15 cm × 50,000 = 750,000 cm. Convert centimeters to kilometers: 750,000 cm = 7.5 km.

(b) (i) Give a difference between Sketch maps and Atlas maps.
Sketch maps are rough, freehand representations of an area without precise scale, while atlas maps are detailed and scaled maps found in atlases, covering specific regions or topics.

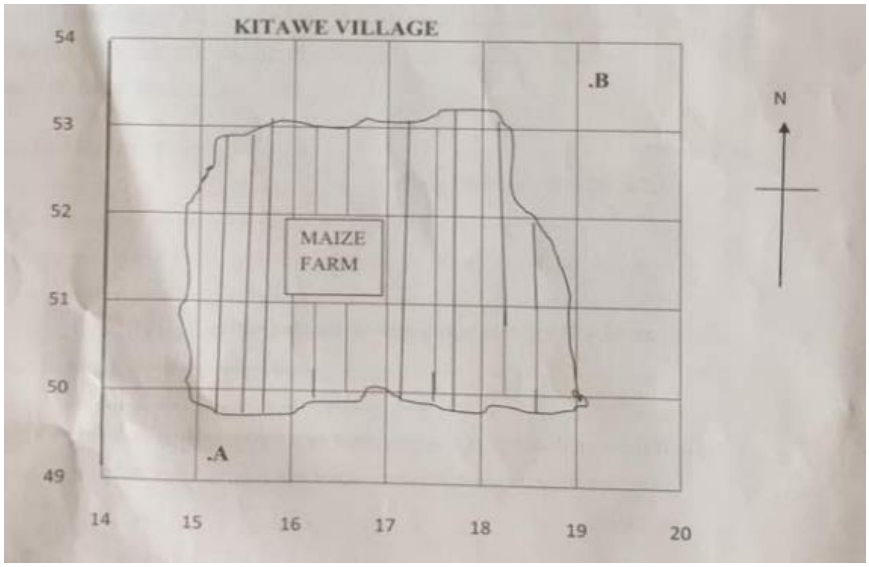
(ii) Give three types of northing.
(i) True North
(ii) Magnetic North
(iii) Grid North

True North is the direction towards the geographic North Pole. Magnetic North is the direction towards the Earth's magnetic pole. Grid North refers to the direction of grid lines on a map.

(iii) Name two types of grid reference system.
(i) Four-figure grid reference
(ii) Six-figure grid reference

A four-figure grid reference identifies a grid square, while a six-figure grid reference gives a precise location within a grid square.

(c) Study the map provided then answer all the questions that follow.



(i) Calculate the area of maize farm in km².
The area of the maize farm is approximately 4 square kilometers.

- Count the grid squares covered by the farm on the map. Each square represents 1 square kilometer if the scale allows.

(ii) Find the grid reference of point B.
The grid reference of point B is 20, 54.

- Read the easting (20) and northing (54) coordinates where point B is located on the map grid.

6. Describe five factors for the location of manufacturing industries in the world.

Manufacturing industries refer to industries involved in the production of goods using machinery, tools, and labor. The location of manufacturing industries is influenced by several factors.

Availability of raw materials is crucial as industries often set up near sources of raw materials to reduce transportation costs. For instance, industries requiring heavy raw materials like steel or cement prefer locations close to mines or quarries.

Labor availability also plays a significant role since industries need skilled and unskilled workers to operate efficiently. Areas with a high population or access to labor attract industries due to the availability of workforce.

Infrastructure, such as transportation networks, electricity, and water supply, is another factor as industries require efficient systems for production and distribution. Without adequate infrastructure, industries struggle to function effectively.

Proximity to markets is important as industries prefer locations near their target consumers to reduce delivery costs and time. This helps industries maintain competitive pricing and ensures quicker delivery of goods.

Lastly, government policies, including tax incentives and subsidies, influence industrial location, as industries are more likely to establish in regions offering favorable conditions for growth and operations.

7. Explain five problems that are facing the Rufiji basin project in Tanzania.

The Rufiji basin project is a major hydropower and irrigation initiative aimed at generating electricity and boosting agricultural production. However, the project faces significant challenges.

Environmental degradation is a major concern, as the construction of dams and reservoirs disrupts local ecosystems and biodiversity. This negatively impacts wildlife and the surrounding natural environment.

Displacement of communities is another issue as people residing in the project area are forced to relocate, disrupting their livelihoods and causing social unrest.

Financial constraints hinder the project's progress due to the high cost of construction and maintenance. Limited funding slows down project implementation and increases overall costs.

Technical challenges, including delays in acquiring machinery and skilled labor, further complicate the implementation of the project. This affects the project's timelines and operational efficiency.

Lastly, conflicts between stakeholders, such as local communities, government agencies, and conservationists, arise due to differing interests. These disputes delay decision-making and project progress.

8. Elaborate five problems facing the development of the mining industry in Tanzania.

The mining industry involves the extraction of valuable minerals and resources from the Earth. In Tanzania, the development of the mining sector faces several issues.

Poor infrastructure, including inadequate transportation networks, electricity, and water supply, makes it difficult to operate mines efficiently. Without proper infrastructure, mining operations are costly and time-consuming.

Environmental concerns, such as deforestation, soil erosion, and water pollution, arise due to mining activities. These issues affect local communities and natural habitats, creating resistance to mining projects.

Limited capital and investment hinder the development of the sector as mining requires significant financial resources. Without sufficient funding, mining companies struggle to acquire equipment and develop new mines.

Labor challenges, including lack of skilled personnel and disputes between workers and management, affect productivity. These challenges reduce efficiency and cause operational delays.

Corruption and lack of transparency in the management of mining revenues discourage potential investors. This also leads to inequitable distribution of resources, reducing the sector's overall impact.

9. Explain five disadvantages of air transport to a country like Tanzania.

Air transport refers to the movement of goods and people using aircraft. Despite its speed and efficiency, air transport has disadvantages for Tanzania.

High costs make air transport unaffordable for many people, limiting accessibility and usage. This restricts its benefits to only a small portion of the population.

The reliance on expensive infrastructure, such as airports and maintenance facilities, poses a challenge for developing countries like Tanzania. Without these facilities, air transport cannot function effectively.

Air transport is highly weather-dependent, as adverse weather conditions can cause delays or cancellations. This unpredictability affects the reliability of air travel.

Limited cargo capacity restricts the amount of goods that can be transported, making it unsuitable for bulk items. This limits its application in industries requiring large-scale transportation.

Additionally, air transport contributes to environmental pollution through greenhouse gas emissions, which exacerbates climate change and affects ecosystems.

10. Describe five factors which enhance the conducive environment for the generation of energy.

Energy generation refers to the process of producing energy from various sources, such as solar, wind, hydro, and fossil fuels. Several factors enhance a conducive environment for energy generation.

Availability of natural resources, such as rivers for hydropower, sunlight for solar energy, and wind for wind power, is essential. These resources provide the raw materials needed for energy production.

Advanced technology improves efficiency in energy generation and reduces costs, making it easier to harness renewable and non-renewable sources. This also ensures sustainable energy production.

Government policies, including subsidies and incentives, encourage investment in the energy sector and facilitate infrastructure development. Supportive policies attract investors and enable projects to progress smoothly.

Skilled labor is crucial for maintaining and operating energy generation facilities. A trained workforce ensures the efficient functioning and maintenance of energy systems.

Finally, strong infrastructure, including power grids and transportation systems, supports the distribution and accessibility of energy to consumers. Without proper infrastructure, energy generation cannot meet consumer demands effectively.