

SMZ
ZANZIBAR EXAMINATIONS COUNCIL
FORM THREE ENTRANCE EXAMINATION

031

GEOGRAPHY

Time: 2:30 Hours **ANSWERS** monday, 08th November 2014.

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)** marks.
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.

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1. a) Scale can be known as

Answer: The ratio or relationship between a distance on a map and the corresponding distance on the ground.

b) Three ways of expressing a scale of a map are:

- i) Statement scale
- ii) Representative fraction (RF)
- iii) Linear scale

c) Mention five important uses of a scale of a map:

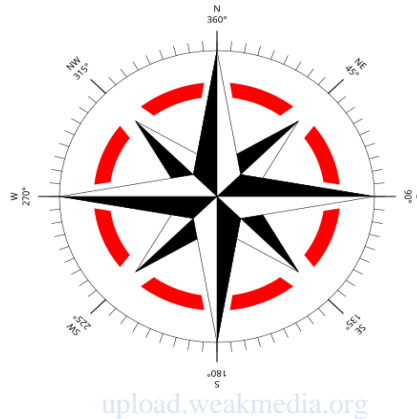
- i) To measure distances on a map
- ii) To calculate areas represented on a map
- iii) To determine direction and orientation
- iv) To provide a reference for comparing different maps
- v) To convert map measurements to real-world measurements

d) Identify five ways that can be used to locate a position of a place on a map:

- i) Using grid references
- ii) Using latitude and longitude
- iii) Using landmarks and features
- iv) Using a compass direction
- v) Using map coordinates

2. a) Draw a clear diagram and then label the Eight (08) Cardinal Points:

Answer: A diagram with the cardinal points: North, South, East, West, Northeast, Southeast, Northwest, Southwest.



b) Given the following scale of map (1:100,000), calculate a distance on the map which will represent a distance of 30km on the ground.

Scale = 1:100,000

30km = 30,000 meters

Map distance = $30,000 / 100,000 = 30 \text{ cm}$

c) Write down five characteristics of any clear and good sketch map:

- i) It should have a title.
- ii) It should include a legend or key.
- iii) It should indicate a scale.
- iv) It should have clear labels for features.
- v) It should show a north direction.

d) Three common methods used to calculate the areas of irregular objects on a map are:

- i) Using a grid square method
- ii) Using a planimeter
- iii) Estimating with geometric shapes

3. i) The following are the layers of the sun except:

- A. Corona
- B. Photosphere
- C. Convection
- D. Stratosphere

Answer: D. Stratosphere

Reason: The stratosphere is a layer of the Earth's atmosphere, not part of the sun. The corona, photosphere, and convection zone are layers of the sun.

ii) In every 360° the Earth rotates for:

- A. 24 Hours
- B. 12 Hours
- C. 4 Minutes
- D. 360 Days

Answer: A. 24 Hours

Reason: The Earth completes a full rotation of 360° in 24 hours, resulting in one full day.

iii) Sea breezes occur during:

- A. Day time
- B. Winter Condition
- C. Night
- D. Summer Condition

Answer: A. Day time

Reason: Sea breezes occur during the day when the land heats up faster than the sea, creating a pressure difference.

iv) Which of the following instruments is used to measure atmospheric pressure:

- A. Aneroid Barometer
- B. Anemometer
- C. Rain Gauge
- D. Hygrometer

Answer: A. Aneroid Barometer

Reason: Aneroid barometers are specifically designed to measure atmospheric pressure. Other instruments measure wind speed, rainfall, or humidity.

v) If the local time at Greenwich Meridian (0°) is noon, what is the local time at DSM which is (39°) E:

- A. 12:00 pm
- B. 12:00 am
- C. 06:00 am
- D. 02:36 pm

Answer: D. 02:36 pm

Reason: $39^\circ \times 4 \text{ minutes} = 156 \text{ minutes} = 2 \text{ hours and } 36 \text{ minutes ahead of Greenwich Mean Time (GMT)}$.

vi) One of the following is a largest lake compared to others:

- A. Lake Nyasa
- B. Lake Tanganyika
- C. Lake Victoria
- D. Lake Manyara

Answer: C. Lake Victoria

Reason: Lake Victoria is the largest lake in Africa by surface area compared to the other options.

vii) Water vapor is turned into water droplets by the process of:

- A. Condensation
- B. Convection
- C. Liquefaction
- D. Evaporation

Answer: A. Condensation

Reason: Condensation is the process of water vapor turning into liquid water droplets.

viii) One of the following is the characteristics of the Tropical Desert Climate:

- A. Low Humidity
- B. Cloudless
- C. Low Rainfall
- D. Very low annual temperature

Answer: C. Low Rainfall

Reason: Tropical deserts are characterized by very low rainfall.

ix) The name of latitude $23\frac{1}{2}^\circ$ S is called:

- A. Tropic of Capricorn
- B. Equator
- C. Prime Meridian
- D. Tropic of Cancer

Answer: A. Tropic of Capricorn

Reason: The Tropic of Capricorn is located at $23\frac{1}{2}^\circ$ south of the equator.

x) The scientific study of the components of Solar System is called:

Answer: Astronomy

4. Match items in Column A with those that correspond in Column B. Write the letter of the answer in the space provided.

Column A:

- i. Galaxy
- ii. Relief Rainfall
- iii. Tennessee Valley
- iv. Longitude
- v. Solar

Column B:

- a. Group of stars
- b. The moon
- c. United States of America
- d. United Kingdom
- e. Line which measured East and West of GMT
- f. Line which runs north and south of the equator
- g. The sun
- h. Mountainous areas
- i. An example of Fold Mountains
- j. Summer Solstice

Answers:

- i. a - Group of stars found in the universe, such as the Milky Way.
- ii. h - Rainfall caused when moist air rises over mountainous areas, cooling and condensing to form rain.
- iii. c - A region in the United States known for its development projects like the Tennessee Valley Authority.
- iv. e - Imaginary lines running from the North Pole to the South Pole, used to measure distances east or west of the Prime Meridian.
- v. g - Relating to the sun, such as energy derived from sunlight.

5. Write "T" if the following statement is true or "F" if the following statement is false in the space provided.

- i. Solar energy is the environmental-friendly source of energy: T
Solar energy does not emit greenhouse gases and relies on renewable sunlight.
- ii. The land surface occupies 29% of the surface of the Earth: T
The rest, 71%, is covered by water in oceans, seas, and lakes.
- iii. Rotation causes season: F
Seasons are caused by the Earth's tilt and revolution around the Sun, not rotation.

iv. Mt. Everest is found in the continent of Europe: F
Mount Everest is located in Asia, specifically in the Himalayas.

v. River Nile has passed through Uganda, South Sudan, Sudan, and Egypt: T
The Nile River flows through these countries, making it the longest river in the world.

6. Study carefully the rainfall recordings for a week at Madungu School Weather Station below, and then fill in the gaps by writing the correct answer in the space provided.

Day:

Mon: 45

Tue: 90

Wed: 50

Thu: 55

Fri: 50

Sat: 50

Sun: 45

Questions:

i. The mean (average) rainfall for the Madungu station is 55 mm

The mean is calculated by summing all the rainfall values and dividing by the number of days.

ii. The maximum rainfall for the Madungu station is 90 mm

This is the highest recorded rainfall for the week.

iii. The minimum rainfall for the Madungu station is 45 mm

This is the lowest recorded rainfall for the week.

iv. The range of rainfall for the Madungu station is 45 mm

The range is the difference between the maximum and minimum rainfall.

7. Read carefully the data for the climate X below and then fill in the gaps by writing the correct answer in the space provided.

i. Climate X is called Tropical Savanna Climate

This climate is characterized by a distinct wet and dry season with moderate rainfall and high temperatures.

ii. Three main areas where this climatic region (climate X) is found

East Africa, parts of West Africa, and Northern Australia

These regions experience similar climatic conditions with seasonal rains.

iii. Three human activities which are carried out in this region (climate X)

Agriculture, livestock keeping, and mining

These activities are supported by the moderate rainfall and availability of natural resources.

iv. Three common natural vegetation which are found in (climate X)

Grasslands, acacia trees, and scattered shrubs

The vegetation is adapted to withstand periods of drought and moderate rainfall.

8. a) What is Nomadism?

Nomadism is a lifestyle where people move from one place to another in search of pasture and water for their livestock, without permanent settlement. This is common in arid and semi-arid regions.

b) Four problems that face livestock keeping are:

i. Diseases and pests

Livestock suffer from diseases such as foot and mouth disease, which reduce productivity.

ii. Inadequate water supply

Limited water sources during dry seasons lead to challenges in sustaining livestock.

iii. Poor market access for livestock products

Farmers face difficulties in accessing reliable markets for their livestock products.

iv. Overgrazing

Overgrazing leads to land degradation and reduced availability of pasture.

c) Four characteristics of plantation agriculture in Tanzania are:

i. Large-scale farming

Farms are usually extensive, covering large areas of land.

ii. Use of modern equipment and techniques

Mechanized tools and advanced farming methods are used to maximize yields.

iii. Production of cash crops for export

Crops like tea, coffee, and sisal are grown primarily for international markets.

iv. Requires a large labor force

Significant labor is needed for planting, harvesting, and processing crops.

9. a) Define Forest.

A forest is a large area covered with trees, shrubs, and other vegetation, serving as a habitat for wildlife and providing resources such as timber, food, and oxygen.

b) What are the important four factors that influence the distribution of the forest?

i. Climate

Rainfall and temperature greatly influence the growth and type of vegetation.

ii. Soil type

Fertile soils support dense forest growth, while poor soils limit vegetation.

iii. Altitude

Higher altitudes may have unique forest types like montane forests.

iv. Human activities

Deforestation and afforestation efforts impact the distribution and size of forests.

10. a) What are the economic importance of tourism in Zanzibar? Explain any five of them.

i. Provides employment opportunities

Tourism creates jobs in hotels, transport, and guiding services, reducing unemployment rates.

ii. Generates foreign exchange

Tourists spend money on local services, boosting foreign currency reserves.

iii. Encourages infrastructure development

Tourism demands better roads, airports, and communication networks, which also benefit local residents.

iv. Promotes cultural exchange

Tourists learn about local traditions, while locals benefit from exposure to global cultures.

v. Supports local businesses

Craftspeople, farmers, and vendors gain a market for their goods and services.

b) Outline five negative impacts of tourism in your community.

i. Environmental degradation

Tourism can lead to littering, pollution, and destruction of natural habitats.

ii. Cultural erosion

Traditional practices may be commercialized or lost due to influence from tourists.

iii. Increased cost of living

Influx of tourists can drive up prices of goods and services for locals.

iv. Overcrowding

Popular tourist areas can become congested, affecting local quality of life.

v. Exploitation of local workers

Tourism jobs often offer low wages and poor working conditions.

11. a) Identify any four major sources of energy.

i. Solar energy

Energy harnessed from sunlight using photovoltaic cells.

ii. Wind energy

Generated by wind turbines converting wind into electricity.

iii. Hydro energy

Produced by water flowing through dams to generate power.

iv. Fossil fuels

Energy derived from coal, oil, and natural gas.

b) Name three important socio-economic impacts of energy and power resources.

i. Drives industrialization

Energy powers machinery and factories, boosting industrial growth.

ii. Improves quality of life

Reliable energy provides lighting, heating, and electronic appliances.

iii. Enhances transportation

Energy is critical for running vehicles, trains, and ships.

c) Explain any three fuels which produce power.

i. Coal

A fossil fuel burned to generate heat, which is converted into electricity in power plants.

ii. Natural gas

A clean-burning fossil fuel used in power generation, heating, and industrial processes.

iii. Biomass

Organic material such as wood or crop waste burned or processed to produce heat and electricity.

12. a) Define manufacturing industry.

A manufacturing industry involves the processing of raw materials into finished goods using labor, machines, and energy. Examples include food processing and automobile production.

b) Describe four factors which influence the location of the manufacturing industry.

i. Availability of raw materials

Industries are often located near raw materials to reduce transportation costs.

ii. Access to markets

Proximity to consumers helps in reducing distribution costs and ensuring quick delivery.

iii. Availability of labor

Industries require skilled and unskilled workers, influencing location decisions.

iv. Infrastructure

Good roads, reliable energy, and communication systems attract industries to specific areas.

c) Suggest any four ways of reducing industrial pollution in the world.

i. Implementing stricter environmental laws

Enforcing regulations to limit emissions and waste disposal.

ii. Promoting green technology

Adopting cleaner production methods and renewable energy sources.

iii. Encouraging recycling

Reusing industrial waste reduces pollution and conserves resources.

iv. Educating industries

Raising awareness about sustainable practices and environmental conservation.