**NAME …………………………………………ADM. NO………CLASS:……**

**GEOGRAPHY: 312**

**FORM ONE**

**JULY/AUGUST 2015**

**MWAKICAN JOINT EXAMINATION TEAM (MJET) 2015**

**GEOGRAPHY**

**2 HOURS**

**Instructions to students**

* Write your name, admission number and class in the spaces provided above.
* Attempt all questions.
* All your answers must be written in the spaces provided below each question.
* All answers must be written in English.

1. What is Geography? (2mks)
2. State four reasons why it is important to study Geography (4mks)
3. a) Name two branches studied in Geography (2mks)

b) Name three areas studied in practical Geography (3mks)

c) State the relationship between Geography and Mathematics (2mks)

1. a) What is the solar system? (2mks)

b) Name four components of the solar system (4mks)

c) State three characteristics of the earth (3mks)

1. a) Name two theories that explain the origin of the earth and the solar system (2mks)

b) Give three weaknesses of the passing star theory (3mks)

1. a) Describe the shape of the earth (2mks)

b) Name the forces that resulted to the spherical shape of the earth (3mks)

c) State four proofs that explain the spherical shape of the earth (4mks)

d) Use a well labeled diagram to describe the lunar eclipse (7mks)

1. a) Name two movements of the earth (2mks)

b) State four effects of earth’s rotation (4mks)

c) Differentiate summer solstice and winter solstice (4mks)

d) What is Equinox? (2mks)

1. a) State three characteristics of the crust (3mks)

b) Name three components of the atmosphere (3mks)

c) Name three layers of the atmosphere (3mks)

d) State three characteristics of the Troposphere (3mks)

e) Differentiate positive lapse rate and negative lapse rate (4mks)

1. a) Define these terms (4mks)
2. Statistics
3. Data

b) Name two types of statistical data (2mks)

c) State three sources of primary data (3mks)

d) State three sources of secondary data (3mks)

e) State three advantages of using observation as a method of data collection (3mks)

1. a) Differentiate between weather and climate (4mks)

b) State three characteristics of a Stevenson’s screen (3mks)

c) State three reasons why data can be inaccurate (3mks)

d) Explain briefly how you can measure rainfall using a rain gauge (4mks)

**GEOGRAPHY FORM 1 MARKING SCHEME**

**MWAKICAN END OF TERM 2 EXAM 2015.**

1. **What is Geography? (2mks)**

* It is the scientific study of the earth as the home of mankind

1. **State four reasons why it is important to study Geography (1x4=4mks)**

* It provides knowledge on the environment/it makes us understand the earth we live in
* It creates awareness on social values which create National Unity in our country
* It helps students to manage time properly
* It promotes international awareness which promote International understanding/Cooperation
* It promotes awareness on proper use of resources/environment
* It prepares one for career opportunities
* It promotes development of practical skills and critical thinking/developmental skills
* It provides knowledge on formation and evolution of land forms

1. **a) Name two branches studied in Geography (1x2=2mks)**

* Physical Geography
* Human Geography

**b) Name three areas studied in practical Geography (1x3=3mks)**

* + Statistical methods
  + Maps and map work
  + Field work
  + Photographic interpretation

**c) State the relationship between Geography and Mathematics (2x1=2mks)**

* + Mathematical formulae and principles are used in Geography to calculate area, distance, mean, bearing, percentage and density
  + Geographical concepts are used in calculating direction/bearing in mathematics
  + Geographical information is analysed and presented using mathematical methods like graphs, tables

1. **a) What is the solar system? (2x1=2mks)**

* The sun, the planets and other celestrial bodies orbiting around it/held together by the force of gravity

**b) Name four components of the solar system (1x4=4mks)**

* The sun
* The planets
* Natural satellites/moons
* Asteroids
* Meteors/meteorites
* Comets

**c) State three characteristics of the earth (1x3=3mks)**

* + Is the 3rd planet from the sun
  + Rotates on its axis 24hrs
  + Has a thin layer of air around it/atmosphere
  + Supports plant and animal life
  + 149 million kms from the sun
  + Revolves around the sun for 3651/4 or 366 days in a leap year on an elliptical orbit
  + Have one satellite/moon which revolves round the earth

1. **a) Name two theories that try to explain the origin of the earth and the solar system (1x2=2mks)**

* Nebula cloud theory
* Passing star theory

**b) Give three weaknesses of the passing star theory (1x3=3mks)**

* Chances of another star passing near the sun are rare/Nil
* Origin of the star and sun are not explained
* The hot gas materials should have dispersed rather than condense
* Materials should have followed the star as it had greater gravitational pull
* The effect of the star setting planets on their orbits would have reduced as the star was moving away.

1. **a) Describe the shape of the earth (2x1=2mks)**

* Earth is oblate spheroid spherical but not a perfect sphere
* Is flattened at the poles and bulges at the equatorial area

**b) Name the forces that resulted to the spherical shape of the earth (1x3=3mks)**

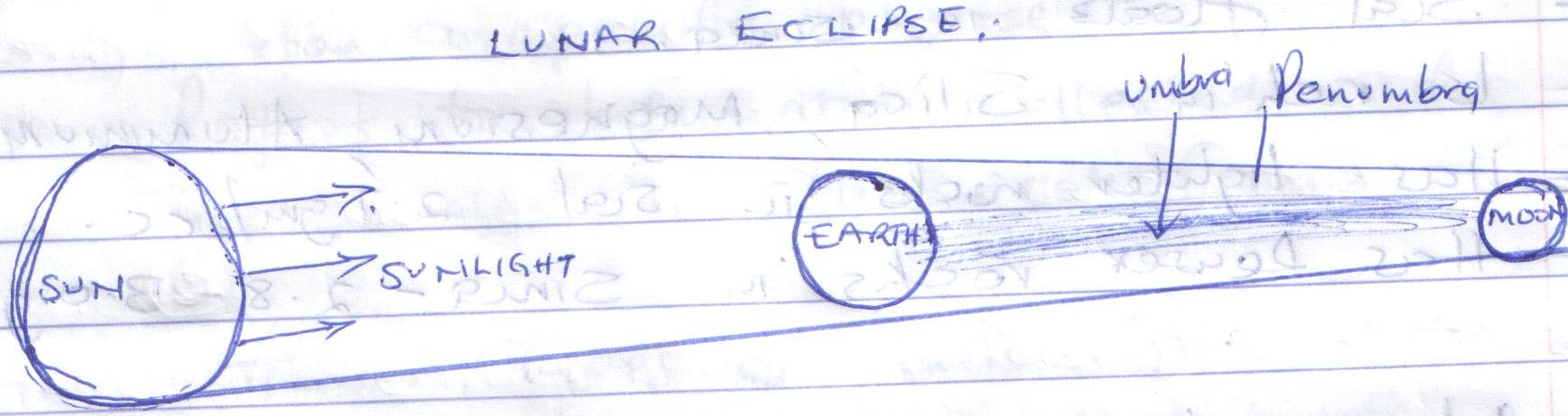
* + Centrifugal force
  + Centripetal force
  + Gravitational force

**c) State four proofs that explain the spherical shape of the earth (1x4=4mks)**

* + Circumnavigation
  + Satellite photographs show spherical shape of the earth
  + Gradual appearance of a ship approaching a port
  + Eclipse of the moon – Earths shadow casted on the moon appear circular or spherical
  + All planets appear spherical so the Earth must be spherical
  + Sun rises on the East and sets on the West
  + Earth’s horizon appear curved observed from a high point

**d) Use a well labeled diagram to describe the lunar eclipse (7mks)**

* + The earth, the moon and the sun are in a straight line
  + The earth is between the sun and the moon
  + The earth blocks sun’s light from reaching the moon’s surface. This casts a shadow on the moon’s surface which is called lunar/moon’s eclipse
  + This happens at night and during full moon
  + It lasts for about two hours as the earth is larger than the moon.



**Diagram = 3mks**

**Text = 4mks**

1. **a) Name two movements of the earth (1x2=2mks)**

* Rotation
* Revolution

**b) State four effects of earth’s rotation (1x4=4mks)**

* + It causes day and night
  + It causes deflection of winds and ocean currents
  + It causes falling and rising of ocean tides
  + It causes a difference in time at different longitudes
  + It causes changes in atmospheric pressure over the earth’s surface

**c) Differentiate summer solstice and winter solstice (2x2=4mks)**

* + Summer solstice is a time of the year when the path of the sun is overhead the Tropical of Capricorn or Cancer and the regions have summer seasons
  + Winter solstice is a time of the year when the overhead sun is far away from either the Northern or Southern hemisphere and the regions have winter seasons

**d) What is Equinox? (2x1=mks)**

* It is the time of the year when the path of the sun is high and overhead the Equator on 21st March and 23rd September.

1. **a) State three characteristics of the crust (1x3=3mks)**

* Is made of solid or brittle rocks
* Is divided into Sial and Sima
* Sial floats in Sima
* Is rich in Silica, Magnesium, Aluminium and Iron
* Has lighter rocks in Sial 2.7gm/cc
* Has denser rocks in Sima 2.8-3.0gm/cc

**b) Name three components of the atmosphere (1x3=3mks)**

* + Gases/Air
  + Water vapour/moisture
  + Hygroscopic particles/smoke/dust/salt/pollen grains

**c) Name three layers of the atmosphere (1x3=3mks)**

* + Troposphere
  + Stratosphere
  + Mesosphere
  + Thermosphere/Ionosphere

**d) State three characteristics of the Troposphere (1x3=3mks)**

* + Is the lowest layer 0-16km upwards
  + Contains 75% of the total gases in the atmosphere
  + Is the life supporting layer
  + Has water vapour/cloud cover
  + Temperature decreases with increase of Altitude
  + Pressure decreases upwards
  + Wind speed increases with increase of height
  + Separated from stratosphere by tropopause

**e) Differentiate positive lapse rate and negative lapse rate (2x2=4mks)**

* + Positive lapse rate – Is a decrease in temperature with an increase in height
  + Negative Lapse rate – Is an increase in temperature with an increase in height

1. **a) Define these terms (4mks)**
2. **Statistics(2x1=2mks)**

* Refers to numerical facts and figures collected and arranged in a systematic order for a specific purpose

1. **Data (2x1=2mks)**

* Refers to information collected and presented in Numerical form

**b) Name two types of statistical data (2x1=2mks)**

* Discrete data
* Continuous data
* Individual data
* Grouped data

**c) State three sources of primary data (1x3=3mks)**

* + Interview to resource person
  + Questionnaires
  + Observation in the field
  + Experiments
  + Measurements
  + Counting
  + Collecting samples
  + photographing

**d) State three sources of secondary data (1x3=3mks)**

* + Text books
  + Magazines
  + Journals
  + Maps/Atlas
  + Census reports
  + Geological maps
  + Newspapers
  + Periodicals
  + Statistical Abstracts
  + Video tapes
  + Photographs
  + Audio tapes

**e) State three advantages of using observation as a method of data collection (1x3=3mks)**

* + Provides first hand information
  + Helps to collect reliable data
  + Saves on time
  + Helps to collect relevant and accurate data
  + Easy to remember/improves visual memory
  + Helps to collect data not found in text books

1. **a) Differentiate between weather and climate (4mks)**

* **Weather**: Is the state of the atmosphere of a given place over a short period of time (2x1=2mks)
* **Climate**: Is the average weather conditions of a place recorded over a long period of time (10-30years) (2x1=2mks)

**b) State three characteristics of a Stevenson’s screen (1x3=3mks)**

* + It has lovoured sides
  + It is painted white
  + It has double roofing
  + It is placed 121cm above the ground level

**c) State three reasons why data can be inaccurate (1x3=3mks)**

* + Use of defective instruments
  + Human error
  + Interference with the instruments by people
  + Poor citing of a weather station
  + Extreme/Harsh weather conditions
  + Natural calamities may damage instruments

**d) Explain briefly how you can measure rainfall using a rain gauge (4mks)**

* + Remove the water collecting jar from the metal holder/container
  + Pour the water into a measuring cylinder
  + Take readings from the measuring cylinder
  + Record the readings on a table/chart
  + Interpret the readings and then reset the rain gauge