**FORM 1 GEOGRAPHY**
**MARKING SCHEME**

la. The study of relationship between man and his environment. (1x3 marks)

b. Main branches of Geography

- Physical Geography
- Human Geography

2a. Asteroids! Planetoids

- These are small planet like objects that orbit around the sun between planet mars and Jupiter (1x2 marks)

Comets

- These are heavenly bodies revolving around the sun in their own orbit. Each comet has a head and a long tail (1x2 marks)

3. Planets

- Mercury
- Venus
- Mars
- Jupiter
- Saturn
- Uranus
- Neptune (1x7 marks)

4. Two weakness of the passing star theory.

- Chances of another star approaching the sun are minima.
- High temperature material drawn from the sun or from the star.
- It does not explain where the sun and the passing star came from (2x1 marks)

5. Physics

- Through Physics geographers are able to explain differences in our pressure, vertical and horizontal movements of air, evaporation and condensation, all processes resulting from heat energy transfer. (1x 2 marks)

History

- Geographers require historical knowledge on how the earth was formed, the distribution of people and their past economic activities (1x 2 marks)

6a. Mohonovicic discontinuity! Mono-discontinuity

b. Characteristics of the core

- It is composed of dense rocks made up of iron and nickel
- Can be divided into two the outer core and the inner core.
- Outer core is semi- molten
- Inner core is said to be solid due to high pressure.
- Outer core temperature 4000°c- 5000°c
- Inner core temperatures are between 5000oc — 6000oc any (1x 5 marks)

7.

- Centrifugal causes bulging
- Centripetal causes flattening of the poles

b. Circumnavigation

- If one takes a fast flying aeroplane you can back where you started
- The sun rises in the East and sets in the West.
- During the lunar eclipse the earth casts a spherical shadow.
- All other planets are round the earth is one of them.
- Photographs taken very high from space shows the earth are spherical.

- Telescopic observations show that the earth is spherical.
- The earth horizon is always circular. (Any 1 x 5 marks

8. Revolution is the movement of the earth within a period of 3651/4 days while rotation is the movement of the earth on its axis within 24 hours. (1 x 2 marks)

9a. $100^{o}E$

$$100^{o} - 60^{o} = \frac{40^{o} * 4}{60 \text{ mins}} = \frac{160}{60} = 2 \text{ Hr } 40 \text{ Min}$$

10.00

+2.40

12.40 pm (1*3 marks

b. $30^{o}$ West

$$60^{o} + 30^{o} = \frac{90^{o} * 4}{60} = \frac{360^{o}}{60} = 6 \text{ hrs}$$

10.00

-6.00

4.oo am

10 a. It is a wooden box found in a weather station where some weather instruments are kept e.g. Thermometer 2 marks

- Metal stands- to prevent attack from termites.
- Double boarding — to prevent isolation.
- 121 cm above the ground to avoid terrestrial radiation.

11. How itworks.

- When the temperature rises the mercury expands and pushes the metal index forward.
- When the temperature falls the mercury contracts leaving the index behind.
- The maximum temperature reached is shown at the end of metal index that was in contract with the mercury.
- Alter taking the readings the thermometer is set by bringing the metallic index into contact with Mercury (any 4x1)

b. Diurnal range of temperature

- It is the difference between the maximum temperature of the day and minimum temperature of the day.

Mean monthly temperature

- It is the sum of the mean daily temperature divided by the number of days in a month /

$$\frac{\text{Sum of mean daily temperature}}{\text{Number of days in a month}}$$

Mean annual temperature

- It is the sum of the mean monthly temperature divided by number of months in a year.

$$\frac{\text{Sum of mean monthly temperature}}{12}$$

12. Four seasons

- Summer
- Autumn
- Winter

- Spring (4 marks)

1 3a. Humidity is the amount of moisture in the atmosphere (1x2)

b. Importance of humidity

- The amount of moisture in the air detennines the amount of precipitation.
- Water vapour absorbs radiation, hence regulates the heat loss from the earth.
- The amount of water vapour determines the amount of energy stored in the atmosphere for development of storms Any 2*1 2marks

c. Formulae

Relative humidity

$$RH = \frac{\text{Absolute humidity}}{\text{Actual amount of moisture the air can hold in a given temperature}} * 100\%$$

14. Frost refers to ice crystals that are deposited on objects on the ground (1x2)

Mist is a mass of tiny water droplets suspended immediately above the ground (1*2 marks)

Sleet is a mixture of rain and snow. 1*2 marks

15. Sea Breeze

- It occurs during the day.
- The land gets heated faster than the sea during the day.
- Low pressure develops over the land.
- Over the sea/ocean high pressure develops.
- Cool air from the sea blow onto the land to replace the rising warm air (1x4 marks)

16a. High clouds

- Cirrus
- Cirro-cumulus
- Cirro — Stratus

b. Characteristics of cumulus clouds.

- Convention cloud with large white globular masses.
- Has a clear outline with the horizontal base.
- has protruding tops that are dome shaped.
- Has thick vertical development. (Any 2x1 marks)

17a. Weather forecasting

- This is the prediction of the weather situation for a given place within a short period of time like an hour/a month/ a year. (1x 2 marks)

b. Importance of weather forecasting

- Helps to determine the farmers calendar
- Helps to determine suitable clothing
- Helps to determine suitable housing
- Helps to determine fishing habits
- Helps to determine time for air and sea travels.
- Helps to plan sporting activities
- Helps in planning military activities.

18. Layers of the temperature

- Troposphere
- Stratosphere
- Mesosphere
- Thermosphere (1x 4 marks)

19.

- Aneroid Barometer

- Anemometer
- Sunshine recorder! Campbell stoke sunshine recorder