

Term 1 - 2024

GEOGRAPHY (312)

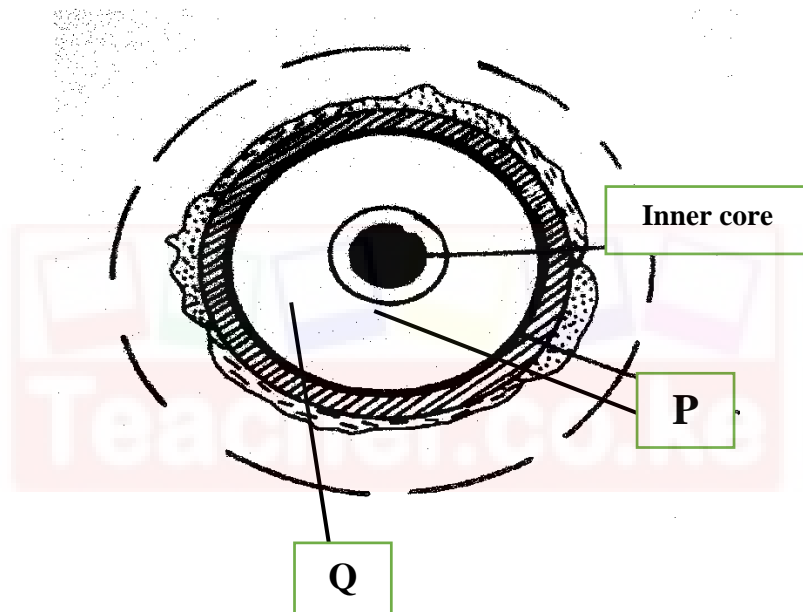
FORM ONE (1)

Time: 1 ¼ Hours  
MARKING SCHEME

SECTION A

Answer ALL the questions

1. The diagram below shows the internal structure of the earth. Use to answer question (a) and (b).



(a) Identify:

(i) the layer marked **P**. (1 mark)

*mantle*

(ii) the zone of discontinuity marked **Q**. (1 mark)

*Gutenberg discontinuity*

(b) Give **four** characteristics of the core. (3 marks)

- *Divided into inner and outer layers*
- *Has a density of about 17g/cm<sup>3</sup>*
- *Inner layer is solid*
- *Outer layer is molten*
- *Has high temperature*

- *Dominant minerals are iron and nickel*

2. (a) Describe the solar system? (2 marks)

- *This refers to the sun, the planets and other heavenly bodies revolving around the sun.*

(b) Name three natural satellites. (3 marks)

- *The Galilean Sisters*
- *Moons*
- *Calisto*
- *Make-make*
- *Triton*

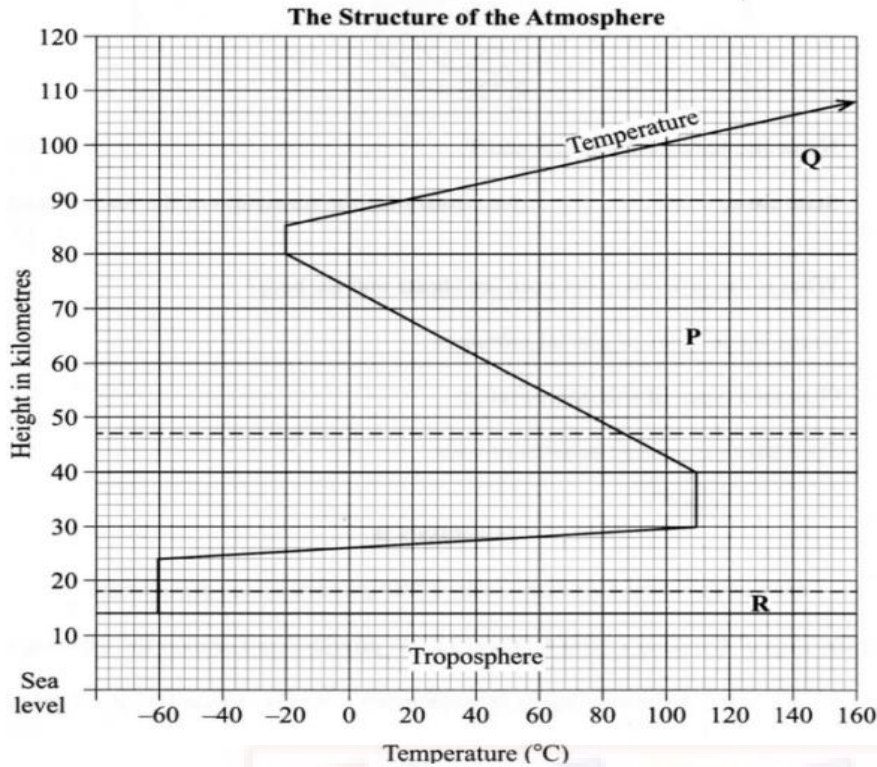
3. (a) Give two effects of rotation of the earth. (2 marks)

- *Causes day and night*
- *Causes a difference in time between any two longitudes*
- *Causes rise and fall in tides*
- *Causes deflection of winds and ocean currents*

(b) State four reasons why the study of geography is important. (4 marks)

- *creates international awareness*
- *helps learners acquire skills like observation, map reading and interpretation.*
- *Promotes positive attitudes towards management and conservation of environment*
- *Enables learners to be good time managers through drawing work schedule for fieldwork.*
- *It is an entry into various careers*

4. The diagram below represents the structure of the atmosphere.



(a) Name:

- (i) The parts marked P and Q. (2 marks)
- *P – mesosphere*
  - *Q - thermosphere*
- (ii) The layers of discontinuity marked R. (1 mark)
- *R - Tropopause*

- (b) State two characteristics of the troposphere. (2 marks)
- *Has most weather making elements*
  - *Temperature drops with increase in height*
  - *Wind speed increases with rise in altitude*
  - *Pressure drops with increase in altitude*

5. (a) Define the term environment. (2 marks)

- *The sum total of the surrounding which has influence of development and behaviour of an organism.*

(b) Name two types of environment. (2 marks)

- *physical environment*
- *human environment*

## SECTION B

**Answer ALL the questions.**

6. (a) (i) Define the term geography. (2 marks)
- *The scientific study of earth as home of man.*
- (ii) Give three branches of geography. (3 marks)
- *Physical geography*
  - *Human and economic geography*
  - *Practical geography*
- (b) Explain the relationship between geography and the following disciplines;
- (i) Chemistry. (2 marks)
- *Knowledge of chemistry is used to understand the chemical properties of rocks and minerals.*
- (ii) Agriculture. (2 marks)
- *The study of climate helps to understand the distribution of various agricultural systems in the world.*
- (c) Explain three reasons why the interior of the earth is still hot. (6 marks)
- *The weight of the overlying crustal rocks exerts great pressure in the interior of the earth generating heat.*
  - *The slow cooling process of the interior of the earth compared to the exterior since the formation of the earth has led to retention of heat.*
  - *Radioactivity in the interior of the earth during nuclear fission generate a lot of heat.*
- (d) (i) Describe the formation of the earth according to Passing Star Theory. (4 marks)
- *A star with greater gravitational force than that of the sun passed near the sun.*
  - *It pulled materials from the sun.*
  - *Heavier materials coalesced and formed the interior of the earth.*
  - *Lighter materials remained to form gases and the atmosphere.*
- (ii) State two weaknesses of above theory. (2 marks)
- *The origin of the star is not mentioned.*
  - *Hot gaseous materials from the sun would have dispersed rather than condense.*
- (e) Name any four weather elements. (4 marks)
- *Sunshine*
  - *Atmospheric pressure*
  - *Wind*
  - *Temperature*

- *Precipitation*
- *Cloud cover*
- *Humidity*

7. a) i) What is a weather station? (2 marks)

- *A place set aside for observing, measuring and recording of weather elements.*

ii) State four factors influencing the siting of a weather station. (4 marks)

- *A place with clear view of the surrounding.*
- *A place far from tall trees and buildings.*
- *A relatively level area free from flooding.*
- *A fenced area for security purposes.*

b) Explain how the following factors affect temperature:

(i) Aspect. (2 marks)

- *Slopes facing the sun are warmer than those facing away from the sun.*

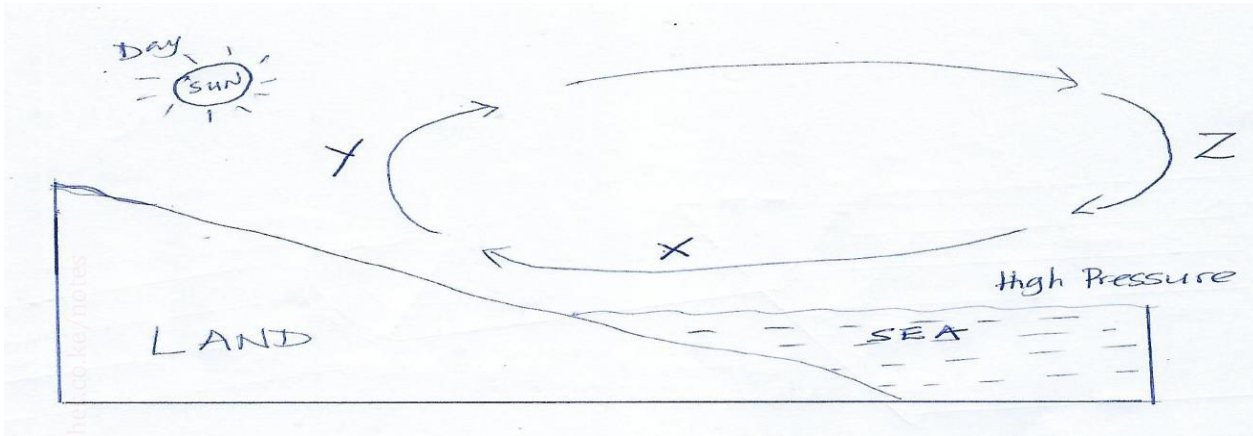
(ii) Ocean currents. (2 marks)

- *Warm moist onshore winds become chilly upon crossing cold ocean currents thus lowering temperature of adjacent land areas.*

(ii) Altitude. (2 marks)

- *High altitudes have low temperatures because of thin atmosphere allowing terrestrial radiation to escape.*
- *Low altitudes have high temperatures due to thick atmospheric concentration blocking terrestrial radiation from escaping.*

c) Study the diagram below and use it to answer the questions that follow.



- i) Label the parts marked X, Y and Z (2 marks)
- X – sea breeze
  - Y – Rising warm moist air
  - Z – Descending cold air
- ii) Identify areas in Western Kenya where the phenomenon shown in the diagram above commonly occurs. (1 marks)
- Lake Victoria region
- c) With aid of a well labeled diagram, describe formation of relief rainfall. (6 marks)
- During the day, land heats faster than the sea.
  - Low pressure is created over the land as the sea surface remains under high pressure.
  - Moist wind moves from the sea to the land.
  - It meets a hill and rises up.
  - In the process it cools, condenses and forms clouds on the windward side.
  - Later when the clouds are too heavy they fall back as relief rainfall.
- d) Give four reasons why weather forecasting is important. (4 marks)
- Used by farmers to plan their activities.
  - Helps in planning for sporting activities.
  - Used in aviation to plan take off and landing of aircrafts.
  - Used in designing of clothes and houses.