1996 GEOGRAPHY PAPER 1 MARKING SCHEME:
SECTION A:

1. a) Two features resulting from extrusive volcanic activity

Composite volcano Lava plateau/lava plains/tuff plateau

Caldera/crater Ash and cinder cones

Spine/volcanic plugs Hot spring (any 2 x 1 =2 mks)

b) Four ways in which volcanicity has influenced human activities in Kenya

i) The Volcanic rocks of the Kenya highlands have been weathered to produce fertile soil for agriculture.

ii) Landforms resulting from activity are tourist attraction /scenic beauty e.g Mt Kenya.

iii) Trachyte and phonolites/volcanic rocks are used for building iv) steams jets/gerious at Olkaria are used for generating geothermal power. v) Gases associated with volcanic activities are mined in Kenya e.g CO_2 at

Kereita and at Esageri in Baringo vi) Steep slopes formed through volcanic activity discourages settlement/farming/development of transport. (4mks)

2. The block diagram below represents part of the earth's crust which has been subjected to tensional forces.

a) (i) The slope marked A-Heave/Escarpment

(ii) The angle marked B-hade (2mks)

b) Three ways in which faulting can influence drainage system

Vertical faulting across a river may cause waterfall

Rift faulting in an enclosed area may lead to formation of a lake if rivers drain into the basin/inland drainage

Some rivers flow along fault lines/fault guided drainage

Uplifting of landscape which leads to faulting may cause rivers to their direction of flow. (Any 2x1= 2mks) 3 a) What is an isobar?

It is an imaginary line connecting places with the same air pressure.

It is a line an a map connecting places with the same atmospheric pressure. (2mks)

b) Four characteristics of Modified equatorial climate (Lake V. Basic)

Rainfall throughout the year

Rainfall total between 1000mm-1600mm/heavy/high/high rainfall

Rainfalls mainly in the afternoons

Rain is accompanied by thunder

Temperature range between 200-60c/moderate a temperatures

There is high humidity

Double maximum rainfall (any 4x1=4 mks)

3 c) Convectional type of rainfall

Small annual range of temperature (only if the answer on rainfall award marks)

4.a) If the local time in Nairobi at longitude 37o E is 10.00a.m. What will the time be at Buchanan in Liberia at longitude 10^oW

$1^o = 4$ Mins

$47^o \times 4 = 188$ mins

= 3hrs 8 mins

Buchanani is 3 hrs. 8 mins behind Nairobi its time will be 6.52 am (2mks)

b) The effect of the international date line on time

On crossing this longitude while going to west, a day is lost while a day is gained while crossing to the East. (2mks)

5. a) Three examples of mechanically formed sedimentary rocks

- Sandstone - Clay stone, siltstone -shale -Mudstone b) Changes that occur in sedimentary rocks when they are subjected to intense heat and pressure.

New Minerals are formed

Minerals recrystallize further

Rock particles become compacted

The physical appearance of the rock changes

Metamorphism without any details(Any 2x 1 = 2 marks)

SECTION B:

1. Study the map of Ithanga (1:50,000 Sheet 135/4) provided and answer the following questions.

a) i) The six – figured grid reference for the trigonometrical station to the south – east of the area covered by the map – 300906 (1mk)

ii) The bearing of the school at Kamwiendei village from the church at Riakanau? 029^o + 1o (022 – 030^o) (2mks)Accept this

iii) The length of the dry weather road (E 625), from the junction at karaba shops to where it ends at Riakanau village in kms.

- 10.7 km + 0.1 km (10c- - 10.8) (2mks)

iv) The area of Tebere B in the northern part of the map.

-13.5 ± 1 km^2 (1.25 – 14.5) km^2 (2 mks)

b) Student from one of the schools in the area covered by the map carried out a field study on the physical features and economic activities found in the area.

i) Two types of natural vegetation they are likely to have identification.

- Scrub - Scattered trees -Woodland

ii) Citing evidence from the map, name three economic activities the students are likely to have identified during their study.(3mks)

Activity:	**Evidence**
Agriculture / farming	Sisal estate / coffee plantation / coffee factory
Commerce / trading	Shop / markets
Mining / quarrying	Processing
Posho mills / coffee factory	Transportation
Roads / ferry	* No evidence no marks Any 3 x 1 = 3 mks

(iii) Citing evidence from the map, name two methods the students are likely to have used to cross River Tana.

Method	**Evidence**
Ferries	Ferries
Barrage	Merila river Barrage
Bridge points	New Tana Bridge
* No evidence no marks	Any 2 x 1 = (2 mks)

(c) The drainage of the area covered by the map is as follows

River Tana and its tributaries from the main drainage system in the area

The area has numerous, permanent, surface streams/ rivers

Most parts of the area covered by the map are well drained

There are some seasonal swamps found mainly along the valley of river Tana.

The main drainage pattern is dendritic with radia pattern noticeable in the South East.

There are man – made water features including dams water troughs and in the area covered by the map (4 x 1 = 4 Mks)

* If you get a specific point find the evidence from the river.

(d) The distribution of settlement in the area covered by the map is as follows: There are few settlements/labour lines within Ithanga estate and Kiamutunguru hills.

There are scattered settlements in the South West and the area immediately to the North of river Tana

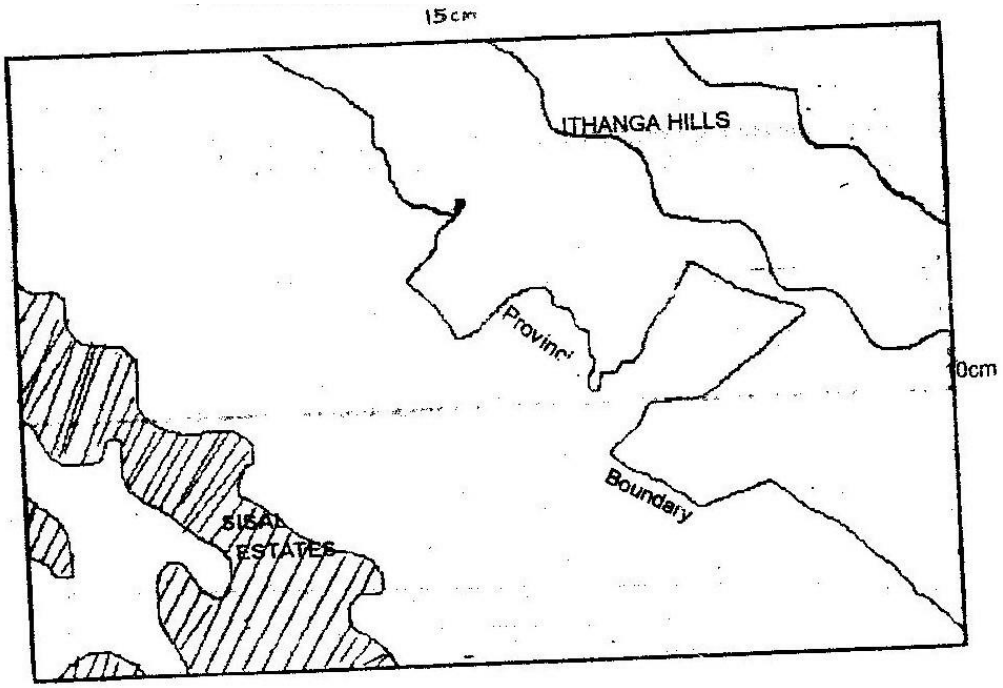
There is nucleated settlements mainly in the market/shopping centres/ villages in the North and South Western part of the area covered by the map.

Some areas such as Mbondoni and the area between Kamwendei and Karabal have no settlements.

(e) A rectangle 15cm by 10cm representing the area west of Easting 20 and south of Northing 00.on the rectangle the following are marked and named.

i) The provincial boundary ii) Ithanga hills

iii) The sisal plantation to the south west of the area.



2. a) i) A river dived

It is a ridge / high ground that separates two or more rivers basins

The highest line of an interflose (1mks) ii)

Describe three ways by which a river transports its load

Traction process / rolling / sliding – The large and heavy particles of the river load are rolled / dragged along the river bed.

Saltation process – particles that are not too heavy but cannot remain suspended in water are momentarily lifted by the water turbulence and at times dropped onto the river bed.

Solution – soluble minerals are dissolved in the river water and carried away in solution.

Suspension – light particles of the load are carried and maintained within the turbulence of flowing water. (any 3 x2 = (6 mks) NB: Correct description can earn marks without process.

b) The characteristics of a river in its old stage

The widening of the valley through lateral erosion creates an extensive area where the river deposits its load, the gradient of the plain is low.

The speed of flow is low, the gradient of the plain is low.

Due to the slow speed and the high rate of deposition, the river forms pronounced meanders.

Due to the slow speed, the main work of the river is deposition

Meanders become more pronounced with narrow neck which are eventually blocked by deposits to form meander cut off / ox –bow lakes.

Increased deposition along the channel raises the river bed may eventually form small islands / braided channel / river braids

Deposition along the banks of the river channel leads to formation of leaves.

The reduced speed and increased deposition blocks the river mouth forcing the river to form distributaries / delta.(any 7 points = 7 marks)

c) Description of drainage patterns / systems.

Superimposed

The drainage system develops on a rock structure that overlay a totally different one.

The river valley cuts through the surface rock layer onto the underlying rocks.

Gradually the surface rocks are removed ad the underlying rocks now become exposed.

The superimposed drainage system bears on relationship to the existing rock structure / discordant with the rock structure (3mks)

ii) **Centripetal**

The pattern develops in an area with a central basin

River drain into the depression from different directions(2mks)

d) You have planned to carry out a study of a river in its youthful stage preparation for the study.

Carry out reconnaissance survey

Read from reference books / seek permission from the authority

Prepare a sketch map

Formulate objectives from the study /Hypothesis of the study

Prepare relevant stationery (Any 2 x 1 =(2 mks)

ii) Two features you are likely to study

Interlocking spurs

Gorges

Water falls / rapids / cataracts

Potholes, plunge, slope river , slope pools(Any 2Mks)2 x 1

iii) Two problems you are likely to experience during the study

Steep slopes

Thick vegetation

Rocky contours

Poor communication / bad roads

Hostile weather conditions (to be specified)

Wild animals crossing river valley (Any 2 x 1 = 2 mks)

3.a) The four process things which are

By hydraulic action

Abrasion / currasion

Solution / Currasion

QUESTION 3:

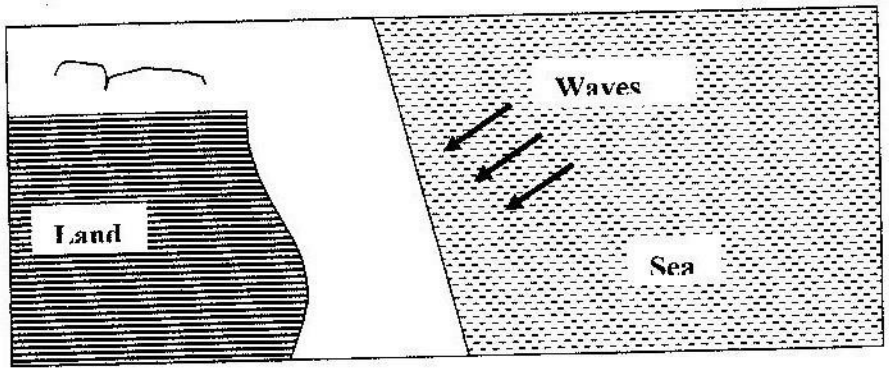
b) i) Formation of a spit.

It forms on a shallow shore at a point where there is a change in the angle of the coastline.

Sand or shingle is deposited by long shore drift / oblique waves

Deposition continues and materials accumulates seawards

With time, an elongated feature with one end attached to the mainland projects into the sea and it called a split.



Spli

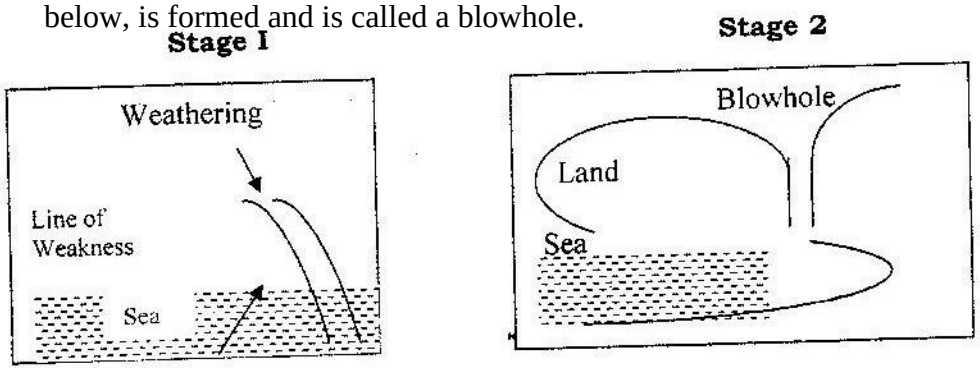
Text max 3 = 4
Diagram 1

FORMATION OF BLOWHOLES

Wave erosion acts on a line of weakness at the back part of the roof of a sea cave

At the same time weathering especially by solution acts on the line of weakness from the surface downwards.

Eventually, a vertical shaft / hole, which connects the surface to the cave below, is formed and is called a blowhole.



Wave action

NB** Point must be mentioned to score full marks for text.

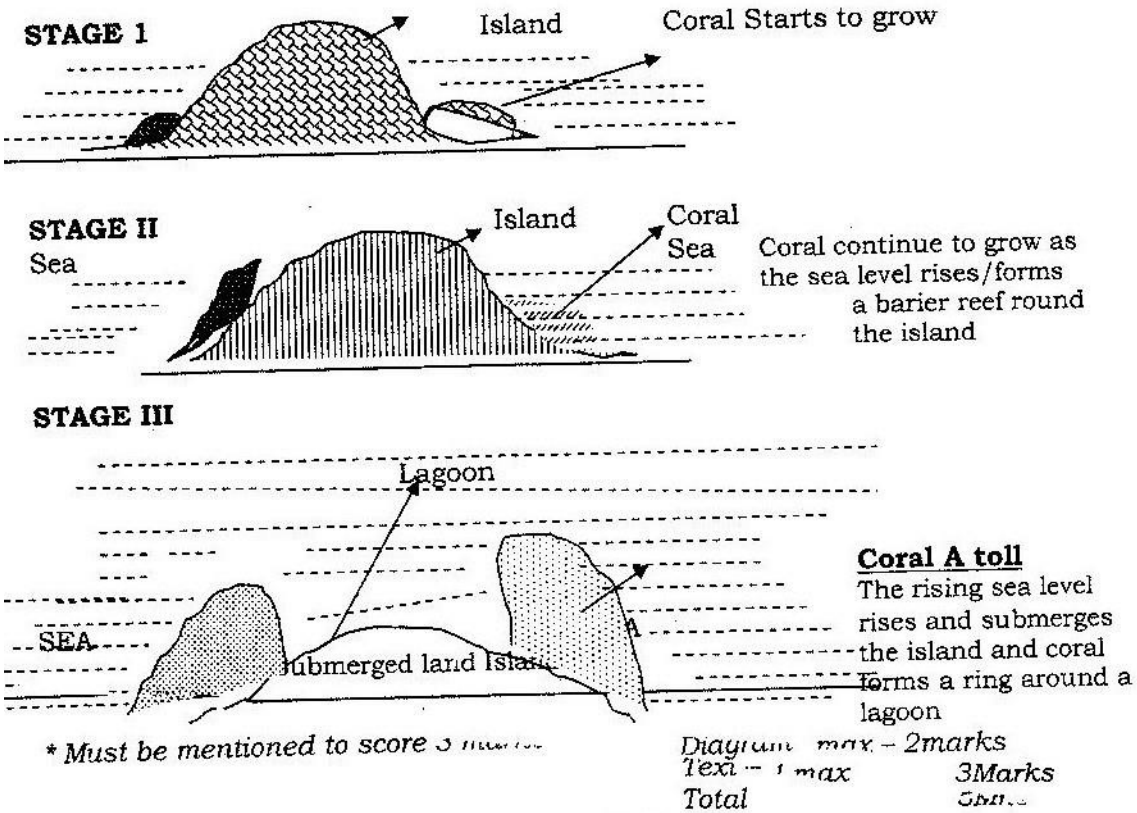
Wave action at the base of a cliff attacks the zone of weaknesses.

The cave develops and gradually enlarge following the lines of weaknesses. The cave eventually opens up further inland through a vertical shaft/line of weakness to form a blowhole group. (2x1= 2mks) Diagram 2 marks.)

An atoll

Stage 1

Formation of a toll



* Must be mentioned to score 3 marks

Diagram max – 2marks
Text – 1 max
Total 3Marks

3 a) (iii) Formation of an Atoll(Hurray's theory) Coral grow on submarine hills or plateaus.

These hills/plateaus consist of either volcanic material or accumulated pelagic material

They rise/accumulate to within 60 meters of depth.

Coral grows more vigorously outwards

The coral on the inner side is slowly dissolved to form a deep lagoon.

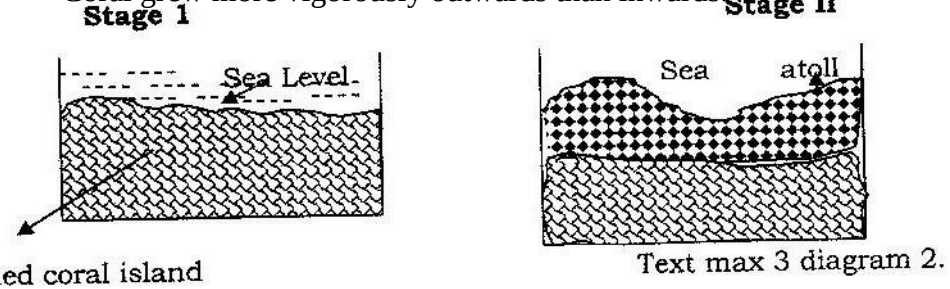
b) (iii) formulation of an Atoll (Dely's theory)

During the last ice age, coral islands in the ocean were flattened by marine erosion.

At the end or the ice age, the meltoutous caused a global rise in sea level.

The warmer temperature encouraged growth of coral reefs, which kept pace with the rising sea level

Coral grew more vigorously outwards than inwards



Flattened coral island

Text max 3 diagram 2.

c) Some student carried out a field study on the coastal features found along the coast of Kenya.

(i) Thee features formed as a result of coastal emergence that they are likely to have studied

Raised beaches

Raised wave-cut platforms

Raised coral/exposed coral rocks

Cliffs

Mud flats (any 3x1 = 3mks)

(ii) Three methods the student may have used to record their data

Taking photographs

Drawing sketches/maps/ Diagrams

Tabulating/tallying

Labels samples

Making notes/taking notes (Any 3x1 = 3mks)

(iii) Two ways in which features resulting from coastal emergence are of significance of Kenya

Some are tourist attraction

Coral provides raw materials for cement manufacturing

Coral rocks are used as building materials

They provide an environment for education/research activities

(2x1= 2mks)

4 a) (i) Four characteristics of desert soil

They are thin/shallow

They are stony/sandy

They are saline

They are loose in texture

They are rich in calcium

Low moisture content (4x1=4 marks)

(ii) Two factors that contribute to soil leaching

Nature of the soil / Solubility of the minerals

Topography

b) How each of the following factors influences the formation of soil;

(i) Parent rock

The nature of the rock influences the rate of weathering/hard rock weather slowly while soft rock weathers fast

The rock determine the soil texture/large grained soils.

The type of minerals in the parent rock are transferred to the soil during formation. (2x1= 2mks)

(ii) Living organisms

They assist in the breaking down of rocks through burrowing / ploughing / root penetration.

They influence the chemical composition of soil by adding / removing organic acid solution / minerals.

Burrowing / digging influences soil aeration. (2 x 1 = 2 mks)

Topography

It determines the rate of weathering / steep slopes encourage high rate of weathering and removal of soil particles.

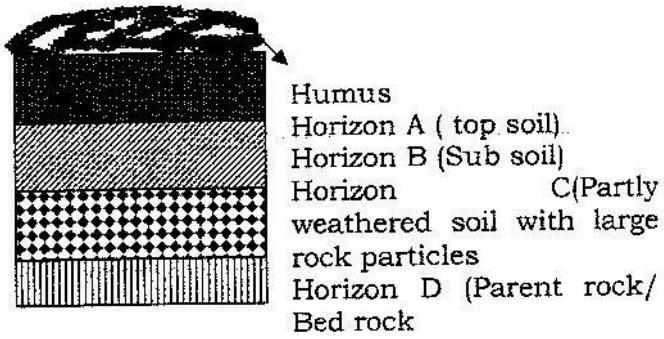
It influences soil depth / gentle slopes have deep soil while steep slopes have thin soils

It influences soil drainage / where land is flat, soil are poorly drained.

(2 x 1 = 2 mks)

c) Draw a well – labeled profile of mature soil

A soil profile



d) Four ways in which human activities contribute to soil erosion

Monocultural / farming activities leads to soil exhaustion thus making the soil vulnerable to erosion.

Overstocking reduces vegetation cover, exposing soil to agents of erosion.

Ploughing up and down a slope provides channels for surface run off.

These are enlarged to become gullies.

Deforestation / clearing of vegetation cover exposes soil to agent of erosion.

Mining / quarrying / road construction loosen / exposes the soil making it susceptible to erosion.

Human settlement and cultivation on steep slope / river frontage increases soil erosion processes.

Continues cultivation without replenishment of soil exhaustion making the soil vulnerable to erosion.

Shifting cultivation / bush fallowing leaves land unprotected against erosion.

(Ant 4 x 2 = 8 mks)

NB: Double tick at the end of the whole explanation = (25)

GEOGRAPHY PAPER 2 1996 MARKING SCHEME

SECTION A

1. a) Vegetable / tomatoes / onions / carrots.(allow any correct vegetable) (max 1mk)

Fruits / oranges , pineapples, plums, mangoes (allow any correct fruit) flowers, roses (max 1 mk)

b) Netherlands has a higher urban population than Kenya / there is high demand both local and foreign for horticultural crops products in Netherlands than in Kenya.

Farmers in Netherlands have more access to the capital needed for horticultural farming than in Kenya.

There is more advanced and appropriate technology in Netherlands which has enhanced horticulture farming than in Kenya.

Netherlands unlike Kenya has highly skilled labour for production and handling of agricultural products.

There is more advanced horticultural farming related research in the Netherlands than in Kenya.

Netherlands unlike Kenya has well organized marketing procedures / cooperatives / auction markets which are conducive for horticultural farming. (any 3 well compared points 3x1(3mks)

2. To create employment opportunities / solve unemployment problem make use of locally available materials.

To produce cheap consumer goods / to substitute the expensive imported goods.

To reduce importation / save foreign exchange To cater for local needs.

To diversify the export goods

Jua kali industries requires little capital investment.

Establishment for jua kali industries is a way decentralizing industries which reduces rural – urban migration

3. a) X – Amboseli N.P Y – Marsabit G.R

Z – malindi / watamu marine Reserve

b) Setting up the Kenya wildlife services which is responsible for conserving wildlife.

Banning of game hunting

Banning of game hunting

Banning of trade in wildlife products

Establishing the Kenya rangelands ecological monitoring Unit (KRMU)

Creating public awareness through mass media, wildlife clubs and wildlife education centres. (Any 2x 1 = 3mks) 4.

a) Ndola, Kitwa, Mafulira Luashya, Chililabombwe, Chemezi

b) Mining of copper has created employment opportunities.

It has led to development of manufacturing industries

It has facilitated the development of transport network.

It has promotes agricultural production near the mining areas.

It has facilitated local and foreign trade.

It has led to expansion of hydro- electric power production.

(Any 3x1 = 3mks)

5. a) High demand for hard wood has led to over – exploitation.

Population pressure on land has led to increased cutting of trees to provide land for farming and settlement.

The time taken for the hardwood trees to mature does not match the rate at which they are being exploited.

Softwood forest in Canada are more extensive than those in Kenya

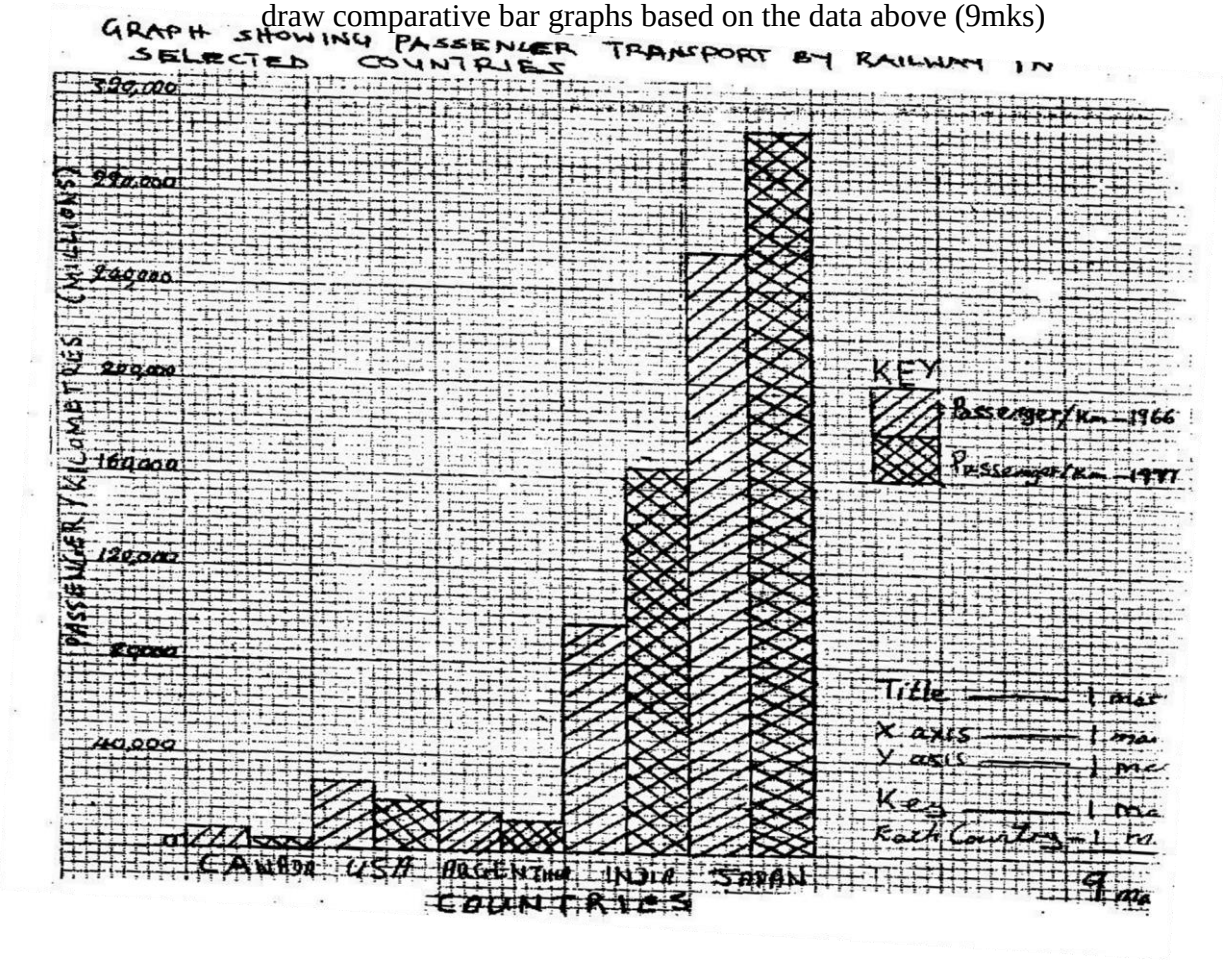
Softwood trees species in Kenya are Exotic while those in Canada are indigenous.

There is a wider variety of softwood tree species in Canada than is in Kenya. (Any 2 x 1 = 2 mks)

SECTION B.

Country	**Passengers in millions**	
	1996	1997
Canada	4,200	3,000
U.S.A	27,700	16,600
Argentina	14,100	12,000
India	96,800	163,800
Japan	258,400	311,900

1. a) i) Using a scale 1cm to represent 20,000 millions passengers, draw comparative bar graphs based on the data above (9mks)



ii) They are easy to construct
They are easy to compare
They depict data more accurately
They give clear visual impression
They are easy to interpret
Easy to reach (Any 2 x 1 = 2mks)_

b) 4,200 1,200 x 100
3,000 4,200
1,200 = 28.5% (2mks)

c) Africa countries were administered by different colonial government who constructed rail lines only with the areas of their jurisdiction.

Many African countries have political differences, which lead to mistrust and hostility. This works against any efforts undertaken railway construction jointly.

African countries have railways of different gauges, which makes it difficult for them to be connected.

There is little inter- state trade among African countries. This does not warrant construction of railways to transport bulky goods.

African countries lack sufficient capital to establish railways which rely mainly of imported raw materials / mountains landscape / swampy terrain have hindered the development of rails to link the countries.

d) Establishment of airport has created employment opportunities thus solving the problem of unemployment/ improving the standards of the employees.

It has promoted tourism by providing direct links with the countries of origin.

It has promoted Horticultural products by providing efficient means of transport to the foreign markets.

It helps generate revenue through taxation of goods and passengers at the airport./ foreign exchange earning.

It has promoted international understanding by enabling Kenyans to interact with people from other part of the world.

2. a) Kisumu grew as the terminus of Uganda railways.

It grew as large port handling the regional lake trade.

The high population in the surrounding areas provided the required labour force.

Early Asian settlement in the area led to commercial development It was a regional headquarters for colonial administration.

Water for domestic and industrial use was readily available in the area.

It has rich agricultural hinterland providing food and industrial raw material.

The development of industries has attracted people to the tow.(Fishing industry) (Any 4 x1 mk 9max 4 mks)

b) Banking / Financial center.

Industrial center

Fashion center

Transport and communication center

Headquarters of U.N

Leading trade center/stock exchange center

Educational center

Cultural center (Max. 5mks)

c) The rapid growth of population has led acute shortage of houses.

There is serious traffic congestion during rush hours especially in Nairobi. This leads to lose of time congestion

The heaps of uncollected garbage cause a health hazard as they can lead to epidemics.

The town a large unemployed population which is idle and encourages crime and immoral practices.

The urban centers suffer from perennial water shortages due to increased

Number of consumers

There is poor sewage system in some parts of the towns. This causes a health hazard.

The rapid growth of population has lead to inadequate provision of health hazard.

The rapid growth of population has lead to inadequate provision of health, education services and social services.

Pollution of the air sound pollution caused by vehicles causes health hazard.

d) Urbanization encourages national unity as people of all nationalities/ethnic background comes together.

It promotes links between countries as communication network tends to focus into urban centres.

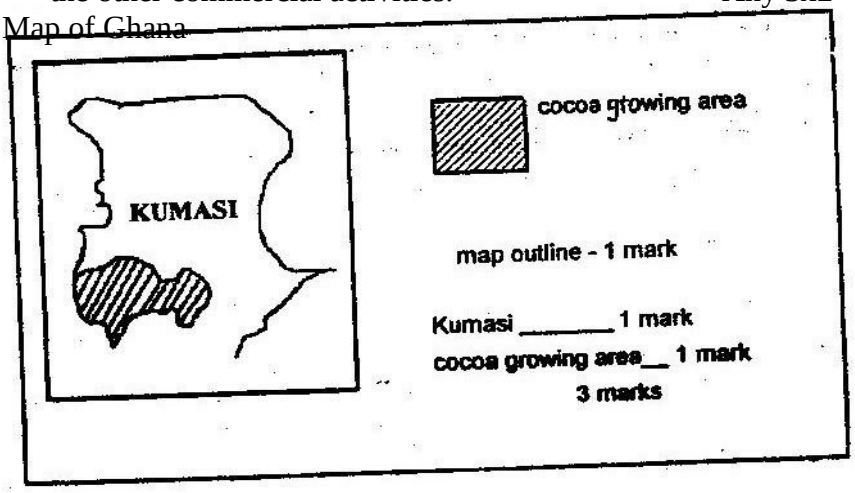
It creates employment opportunities through the establishment of commercial and industrial activities.

It leads to development of infrastructure both within the urban centres and the surrounding rural areas.

It provide market for agricultural and industrial goods produced in the country.

Urban centers attract large population that labour for manufacturing industries and the other commercial activities. Any 3x2=6mks)

Map of Ghana



b)Pods are harvested using long knives

Pods are collected and piled at a central place.

Pods are split open with a sharp knife and beans scooped out by hands.

Beans are put in heaps on mat and covered with banana leave

Beans are allowed to ferment for 5-6 days during which the juicy pulp drains away.

Fermented beans are washed and cleaned

Beans are spread on tables covered with mats to dry in the hot sun.

Beans are turned frequently as they dry and slowly turns brown.

Dry beans are put in sacks and sent to the harvest-buying center.

At the center, the dry beans are weighted and graded ready for export

NB: Sequence should be used some activities may be omitted.

(ii) Pest and disease which destroy the crop

Fluctuation of prices in the world market which discouraged the farmers.

Low prices paid to the crop discourage the farmers.

The strong Hamattan wind destroys the crop.

Inadequate labour during harvest.

Poor means of transport make it difficult for farmers to deliver their crop in time. (4mks)

c) High temperature throughout the years average temperature must be over 21^0-30^0

High rainfall and evenly distributed throughout the year (1000-21000 mm per year.

Deep fertile well drained soils/can withstands a wide variety of soils.

Low altitude of up to 700m sea level.

Seedling must be sheltered from strong winds.

High relative humidity Any 4x2 =8mks)

d) The leaves are used for roofing

The shells and fiber are used for fuel

The leaves are used for making baskets and brooms.

The sap from the stem is used for making wine The fruit is used for making oil/ cosmetics/soap.

Crushed nuts are used a animal feeds

4 a) It is suited where the number of people living in a country or region exceed the available resources.

b) The population has lower life expectancy than that of Sweden has an ageing population..

Most people live in urban centers

Kenya has a high population birth rate while in Sweden it is low Kenya has high population death rate than Sweden.

Kenya's fertility rate is higher than that of Sweden. (Any 4x 1= 4mrks)

c) Most people live in the central highlands and lake Victoria basins because these areas have suitable climate for human settlement and for agricultural production. Areas with fertile soil such as the central Highlands have dense population because the soil support agricultural production/ areas with poor soil have sparse population e.g most parts of Nyika plateau.

Gently sloping and flats lands facilitate settlement and transportation while rugged slopes/steep landscapes have sparse population or nil higher and steeper slopes of Mt. Kenya a nd Elgon.

Transport and communication facilities have encouraged settlements. There are many market centres along the Kenya roads and centres such as Nairobi and Thika, which are, accommodate large population.

Development of industries is a major factor influencing population distribution in Kenya. There are many people in the industrial centers such as Nairobi, Nakuru, Mombasa and Eldoret.

Disease and pest discourages or discourages settlement in given areas. In Kenya, the government discourages population settlement schemes such as Mwea.

Any 4 x 2 = 8mks)

d) (i) Rural-urban urban-Urban Urban-Rural International

(ii) Population pressure which leads to landlessness in areas such as central province lead to migration of people to settlement schemes and to less populated rural areas in search of land.

Insecurity in areas such as North-Eastern and Northern Kenya which have frequent attacks from bandits and cattle rustler shapes made some people to migrate to more secure areas.

Establishment of large plantation near Thika town and rice irrigation schemes in Mwea and Ahero attract people from neighboring areas as they search for employment /mining/Lumbering/fishing.

Natural catastrophes such as floods in Kano plains and lower Tana Valley cause people to move to more secure higher grounds.

Pastoral communities such as the Maasai, Samburu and Boran migrate from one rural area to another in search of pasture and water for their livestock.

Drought and famine sometimes cause people to migrate in search of food e.g some people who live in semi-arid areas of Kenya temporarily migrate to those districts where they can get food during the time of droughts)

d) Explain four factors that influenced population distribution in Kenya.

Rainfall amount and distribution

Soil fertility

Colonial administration

Government policy

Vegetation

Transport and communication network/social amenities

Pests and diseases

Development of industries

Availability of water

Drainage

Temperature

Relief

NB: Explanation should be attached

GEOGRAPHY PAPER 312 / 1 K.C.S.E 1997
MARKING SCHEME SECTIONS A

1. a) P – Atmosphere

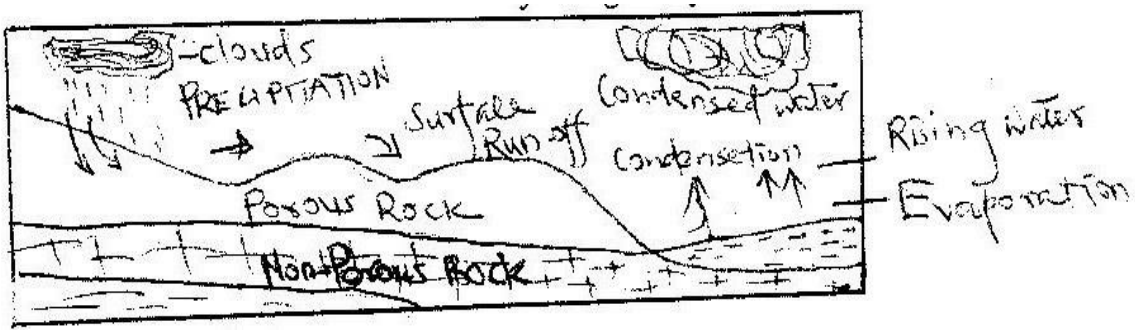
   Q – Crust / lithosphere

   R – Mantle / mesosphere

   - Silica

   - Magnesium

2. a) Draw a well labeled diagram of the hydrological cycle.



b) Through springs / wells / see page
Capillary action / transpiration

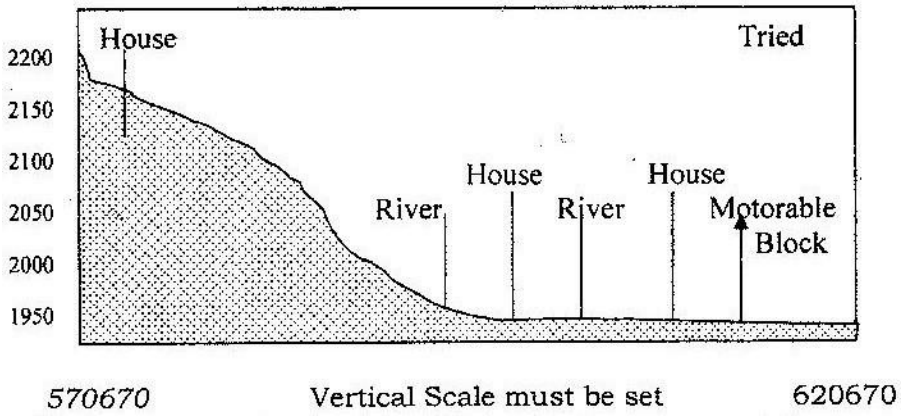
3. -X – Stalactite
-Y – Stalagmite
-Z – pillar / limestone pillar / limestone column

4. a) It is the creeping , flowing , sliding or falling of rocks and weathered material
Under the influence of gravity / Downward movement of the rock materials along
Slopes under influence of gravity. b) Angle of slope / gradient
Nature of materials / nature of underlying rock
Human activities
Earth movement /Tectonic movement
Climatic conditions
Presence or absence of vegetation
Amount of water in the material

5. a) Weather is the atmospheric conditions of a place over a short period of time, usually twenty- four hours , whereas climate is the average weather conditions of a given place over along period of time, usually 30-35 yrs.
b) From the graph
i) The annual range of temperature is 15^{o}C
ii) Total amount of rainfall is 1300mm

SECTION B

6 a)i) Peak of a hill / trigonometric station
ii) A school
Main tracks / motorable track / foot path
iii) 6.25km 0.1 (6.15 – 6.35)
b) Cross – section from 570670 to 620670



End point 1990 – 1960m

c) Drainage comprises mainly of rivers that are permanent

Peaks forming radial patter

Specific rivers such as Turgenon and Kipswes from dendritic pattern

The rivers flowing from the Ainamoi hill (grid sq.5566) to the north – west from parallel drainage pattern.

There is a papyrus swamp south of Kipchimchim (grid sq.562)

There is a pond at 6470

There is a dam / reservoir in grid 6771 / 5661

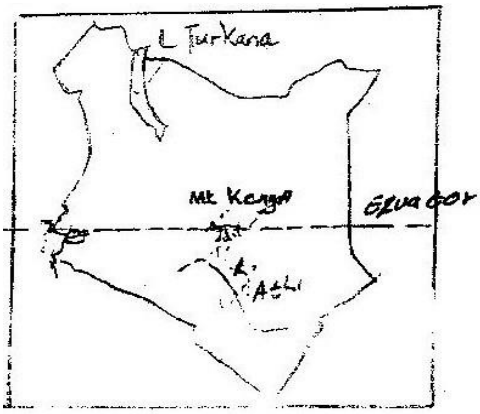
d) Woodland Scrub Scattered trees
Thickets Bamboo Papyrus Riverine trees.

e)

Condition	**Evidence**
-High / heavy rainfall	- Forest / rivers
- Well – drained soils	-Close contours /rivers
- Cool temperature	-Altitude of over 1900
- Availability of labour	- Dense settlement in the neighbourhood / labour lines.
-Availability of transport	-Network of roads / tracks
-Availability of factories	-Factories

i) Observation Interviewing Administering questionnaire
Taking measurement / measure Photographing
Counting Sampling

7. a)(i) Lake Turkana River Athi Mount Kenya
The Equator (1mk each)



b) The region receives rainfall throughout the year.

Total rainfall ranges between 1000mm to 1500mm

The region has double maximum rain fall regime in the East / Single maximum in the wet.

The long rains are received between march and may and the short rain between September and December in the east / peak between may and August in the west.

Rain is mainly caused by the SE trade winds.

The area receives mainly relief rainfall / or graphic

The average temperature range between 17^{o} and $24^{o}C$ / warm temperature.

The lower slope are warmer than the high slopes / temperature are modified by altitude / surface relief.

The area experiences moderate humidity

The coolest months are between June and August while the ret of the year remains warm.

Days are warm while nights are cool / chilly

Mean annual range of temperature is low ($3\text{-}5^{o}C$)

c) Tree in the region have long root tap water from the water – table beneath

Tree are umbrella – shaped to provide shade that reduces the rate of evaporation around the stem.

Some plants have thick leaves and barks for storing water

Some plants have waxy or needle –like leaves to reduce loss of water through transpiration.

Some plants produce seeds that lie dormant for along time and germinate when the rains fall.

d) On shore winds, on crossing a cold current are cooled leading to premature condensation that causes the formation.

On reaching the land they have a drying effect.

In temperature area in summer cold currents keep the coastlands cooler than places on the same latitude. If the winds are offshore.

8.a) The pressure pre-existing depression on the mountain side.

Snow gets compacted into ice forming a cirque glacier.

The snow accumulates in the depression

Frost action / alternating freeze – thaw action enlarges the hallow

Abrasion / scouring action at the bottom of the glacier deepens the hallow

Plucking process steepness' the back wall

Eventually a deep armchair shaped depression known as a corrie fills up with melt water forms a corrie lake.

b) Hanging valleys form waterfalls, which are harmless of the generation of hydroelectric power.

Features found in glaciated landscape attract tourists.(This generate income for the country.

Melting glaciers are sources of rivers, which provide water for domestic/ industrial / agricultural use.

In glaciated highlands, U – shaped valley floors provide suitable areas for settlement and agricultural, communication routes.

Alluvial fans / outwash plains have fertile soils suitable for agriculture

Provide suitable sits for the development of deep harbours

Floors provide shelter water suitable for fish breeding. This promotes fishing.

C)i) Identifying the direction they would take

Identifying the feature they are likely to encounter.

Estimating the time they are likely to take Estimating the distance they would cover.

Planning the schedule of activities

ii) Terminal moraine

Lateral moraine

Ground moraine

Medical moraine

iii) Climbing / descending / steep slopes

Cold weather

Wild animals

Adjusting to the low atmospheric pressure

Crossing through waterlogged ground

Poor visibility

Thick vegetation

Rain (any 2 1mk)

9. a) Likmonite – chert

Travertine / tufa

Dolomite

Rock salt

Gypsum

Haemitite

Trona

b) i) Temperature between 20 – 29 ^{o}C

Warm water

Salty water

Shallow water

Clear water / silt free / mud free

Well – oxygenated water ii) Tiny marine organism called coral polyps live in colonies in the sea.

Polyps extract calcium form the sea water to make their shells.

The spaces between the dead coral polyps are cemented by calcareous algae.

c) Some rocks are exploited to provide building and construction materials.\ This promotes the industry.

Some rocks formation e.g. granite are tourist attractions. This earns the country some foreign exchange.

Rocks have contributed to the development of cement industry through the provision of lime – stone as raw materials.

Through weathering, rocks provide soils which are used for agricultural production.

Some rocks have valuable mineral ores which are exploited and sold to generate revenue

Some rocks are curved for which are sold to generate revenue Some rocks such as rock salt are sources of food.

d) i) Text books / pamphlets

Maps / geological maps

Journals

Periodicals / Magazines / Newspaper

Handouts teacher 1 mk each max 3 (3mks)

e) A part from reading from secondary sources, state four other ways in which the students would prepare themselves for the field study

Setting up study objectives for the study

Identifying methods of data collection

Carrying out a reconnaissance survey

Seeking permission from the relevant authority

Identifying / sorting our relevant equipment, tools for the study

Drawing a route map

Identifying relevant stationery

Dividing themselves into groups

Discussion

GEOGRAPHY PAPER 312/2 K.C.S.E 1997
MARKING SCHEME
SECTION A

1. a) Guernsey
Jersey
Friesian
Ayrshire
Zebu swiss brown

b) well-developed co-operative movement
Availability of market for dairy produce
Availability of extension services
Suitable climate/moderate temperature
Handy fodder/ pasture
Advanced technology/specialization
Mechanization

2 a) Availability of water supply/ good drainage
Availability of land/space
Nature of relief
Suitability of climate/good rainfall
Absence of pest and diseases/health environment fertile soils

b) Clustered/Nucleated
Linear

3 a) The continental shelf is narrow
Poor transport connections to the fisheries
Local fishermen do not have adequate capital
The coastline is fairy straight/has few indentations
The water is too warm for fish breeding/ lack of up welling of water/shallow continental shelf
There is low demand for fish
The fishermen lack modern equipment/preservation facilities/storage facilities
Inadequate skills/inadequate research/technology
Competition from developed countries

b) Provides alternative sources of protein/save foreign exchange
Encourages development of infrastructure
It is a source of income for the farmers/earns foreign exchange
It creates employment opportunities
It promotes industrial development

4 a) Presence of sedimentary rocks
Presence of organic remains/fossils

Presence of pressure to compress or organic remains Presence of porous rocks.

b) It causes water, air pollution/noise pollution

It leads to soil erosion

Dumping of heaps of rock waste litters the surface

Water collects in the open craters forming breeding ground for mosquitoes/pests

Destruction of biodiversity (plants and animals)

5. Availability of labour

Availability of agricultural raw materials

Well developed transport links with other parts of the country

Availability of ready market

Availability of power

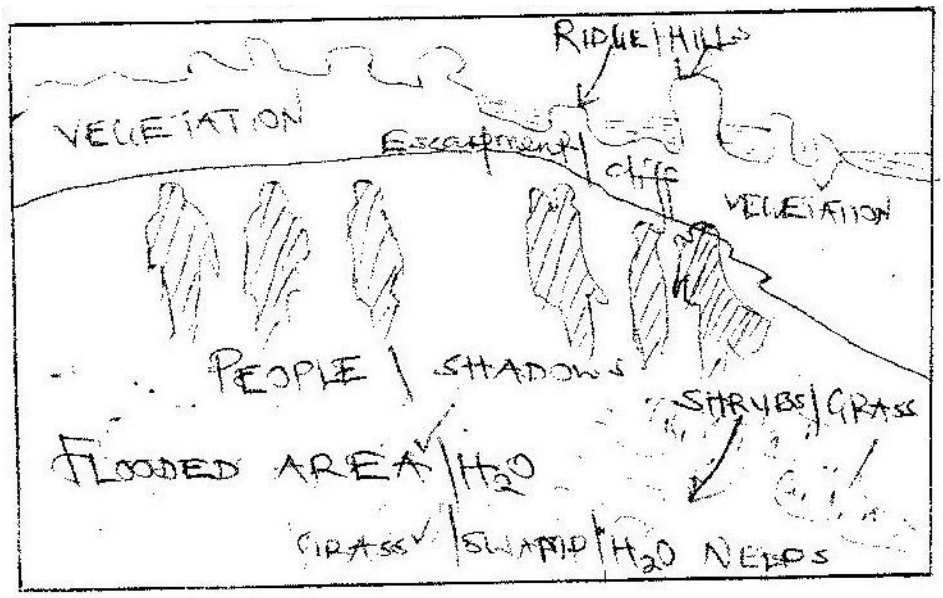
Government policy

Extensive plan for expansion

SECTION B

6 a) (i) Ground general view ground photograph

(ii) Rectangle measuring 17cm by 12cm



(iii) The land rises from the ladle towards the ground

The area in the ground is flat

The area is covered by vegetation I slightly raised

The area in the background has hills/ridges There is a slight depression in the middle ground

b) i) Nyando Nzoia Tana Kuja/Gucha

Yalla Ewaso Nyiro

ii) Flooding creates stagnant water in which diseases causing pests breed.

Flooding leads to loss of property and lives while human life cannot be replaced.

Flooding causes soil water logging which lowers crop production

Floods disrupt farmers' calendar/wash away crops. This leads to food shortage/famine.

Floods wash away bridges and roads/ This disrups transport and communication/air fields/ telephone lines.

People are displaced /left home less

c) Construction of dams/check dams which help reduce velocity of river downstream

Construction of dykes/ artificial levees which restrict outflow of rivers

Construction of diversion channels/canals which helps realign meanders and restrict the flow of rivers/drai floeded areas

Planting of vegetation/forest in the river catchment areas to reduce the surface run-off and increase seepage.

Clearing drainage system to facilitate easy flow of water.

7 a) Ahero Perkera Galole/Hola/Bura

West Kamu Mitunguu Kibwezi

Daua Katila Bunyala Taveta

b) The area war sparsely populated thus making it easy and cheap to resettle the people

Presence of river Thiba Nyamindi, which would provide water for irrigation.

The black cotton soil in the area which was suitable for irrigation because they retain water.

The fertile soil in the area which ws suitable for crop production

Extensive land for future expansion

The gentle land would allow water to reach the farm through gravity

The unreliable/ inadequate rainfall received in the area mad it necessary for irrigation to be practiced.

c) The people who live in the area were originally nomads but now they lead settle live

Initially the people in the area had no regular sources of income, but nowadays, this is earned from sale of cotton and other crops

The establishment of the scheme led to the provision f social amenities .

Infrastructure which have improved people standard of living

Tenants are able to grow food crops besides cotton. This has improved their self sufficiency if food/has improved their diet.

The establishment of the scheme has created employment opportunities for the people in the area.

A forestation has provide firewood/building materials Dairy farming has been introduced.

d) The stagnant water in the scheme encourages breeding of snails and mosquitoes which spread diseases silting of canals/weeds growing in the canals reduce the flow of water into the

fields. The farmers spend extra time and money dredging the canal

Delayed low payment discourages the farmers

Fluctuation cotton prices in the world market

Competition from synthetic fibers discourages/demoralize the farmers

Diseases and pests tat attack the crops lead to low yields

Weeds called seid compete with cotton for nutrients lowering crop yields

Salination lowers quality of soils hence lower yields

Shortage of labour leading to use of hired labour which is very expensive

8 a) i) P- Cameroon

Q- Zaire (Democratic Republic of Congo).

ii) Political differences/hostilities between the countries through which the highway passes

There are civil wars in the region

There are civil wars in the region

Tarrifs charged at the border posts increase transportation costs

Parts of highway are incomplete/impassable during wet seasons/are similar goods

Different currencies are used

Long distance covered

Language barrier

b) There is competition from other forms of transport road pipeline which are faster and flexible/ sometimes cheaper

Maintenance expansions costs of rail network in high thus some of the wagons used are old there has been little expansion of rails lines

There has been mismanagement of rail services leading to deteriorating conditions and lower income

Inadequate servicing of rail equipment wagons/lines has lead to frequent accidents derailments

c) The government has provided the necessary infrastructure such as roads and telecommunication which make it possible for the business community to easily market their products

The government facilities the organization of Trade Fairs/Exhibition/shows, to enable the business community to advertise their products

Removal of restriction of movement of goods produce/fixing air market days

Removal of price controls

Imposition of tariffs on imported goods to produce locally manufactured

The government facilities the organization of conferences/seminars, to enable the business community to exchange ideas on trade

The government through KBS maintains the quality of goods that are produced and sold through Kenya Bureau of standards (KBs).

The government provides credit facilities to the business community through institutions such as state banks

The government facilitates easy distribution of goods through organization such as Kenya national corporation.(KNTC).

d) There is likely to be improved transport links between Kenya and other two countries (Uganda and Tanzania), which will facilitate faster movement of goods and passengers.

Trade in Kenya will likely to increase because expanded hinterland market / strong bargaining power.

There is likely to be more tourists visiting Kenya as a result of opening of boarders

There is likely to increase employment opportunities because of free movement of people

Expanded market will attract foreign investment which will lead to expansion of industries.

Exchange or research finding / training.

9.a)i)Tourism is the visiting of places of interest for e recreational purposes

ii) The varied relief features.

Wild animals

Birds / flamingos

Hot springs / Geysers / Fumaroles /Geothermal

Vegetation

People culture

Pre- historic sites /Historical sites e.g. Kapenguria

Mining sites

Sports tourism e.g. fishing

b) The roads leading tourist sites are poorly maintained. Discourages people from visiting such sites.

Inadequate local comparing and advertisement of tourist attractions/ special packages leads to low public awareness.

Familiarity with the tourist attraction among the local people makes them fail to appreciate their beauty and value

Negative attitude towards local tourism limits the number of people who engage in tourism.

Insecurity from gangsters/ poachers in national parks and game reserves scare people away from visiting them.

The high cost of accommodation in the game lodges discourages local tourism / the high cost of hiring tourism vehicles discourages people from touring / low income.

c) Illegal hunting / poaching of wild game threatens the conservation efforts leads to the extinction of some species of animals.

Overstocking of some wild animals leads to destruction of natural environment through over-grazing.

Frequent drought experienced in some of the nation parks and reserves leads to loss of animals through starvation and death.

Staying wild animals from the parks to settlement leads to destruction / high cost of fencing.

Inadequate capital limits government conservation efforts / over reliance on foreign donor.

Rapid human population growth leads to the encroachment of games parks and reserve.

Pollution of the environment leads to death of wild animals. Fire outbreaks destroy wildlife.

d) Favourable climate; with warm sunny summer which allow swimming and sun bathing and cold winters which encourages winter sports such as skiing.

The varied scenery consisting of snow – capped mountains, cascading waterfall and glaciated landscape provides varied tourist attraction which are lacking in other parts of Europe make the country easily accessible from the other European countries.

Political neutrality of Switzerland removes any travel restrictions to the country as a tourist destination.

Diversity of languages spoken in Switzerland makes it possible for tourist to communicate and move around the area.

Well- developed transport network tourist sites provide easy accessibility.

Advanced training in tourist industry enables Switzerland to provide the necessary services to tourist thus attracting more to the country / package tours services offered e.g. hotels.

Availability of health resorts.

Inherent hospitality of Swiss people encourage tourist to visit Switzerland.

Well-developed financial institutions (Banks) have promoted easy transaction, hence encouraging tourist to Switzerland.

Switzerland is HQ of several international agencies; this has lead to the influx of delegates to the country later turn to tourist.

GEOGRAPHY PAPER 312/1 K.C.S.E 1998
MARKING SCHEME SECTION A

1. (a) The diagram below represents the earth on its axis. Use it to answer question a
   (i) Tropic of cancer (1mk)
   (ii) 66 ½ ^{0} (1mk)
   (b) It causes days and nights apparent movement of the sun form East to west
   It causes differences in time at different longitudes
   It causes deflection of winds/ deflection of ocean currents
   It causes raising and falling of sea tides
   It causes variation in atmospheric pressure is the extended service
2. (a) It is the molten rock under the earth's crust
   (b) A sill is a near horizontal/ tabular sheet of igneous rock formed from solidified magma intruded between bedding planes, while a dyke is a shrub of intrusive rock which cuts near vertical/ discordantly across the bedding planes. (no mark for one side only)
   (c) P – Conelet/ subsiding cone/ acidic presitic
   Q – Layer of lava
   R – Crater
3. (a) Collision between tectonic plates
   Faulting/ cracking rocks
   Movement of magma within the crust/ violent and volcanic eruption
   Adjustment of rocks as a result of stress e.g. caused by folding
   Isostatic adjustment Any 3 x 1 (3 mks)
   Excessive energy release within the mantle which is explosive
   Gravitative pressure
   Explosions caused by man e.g. yest
   (b) Collapsing/ cracking buildings
   Loss of life (human animal and plant)
   Disruption of transport and communication lines
   Outbreak of fires
   Avalanches and landslides my cover the built up area
   Tsunamis may drown coastal settlement ***Any 2 x 1 (2mks)***
4. (a) Arcuate delta
   Bird's foot/ digitate
   (b) Slow moving water at the mouth of a river/ gentle slope at the mouth
   Shallow shore
   Absence of obstacles/ filters in the river cause
   Large amounts of silt in the river
   Calm sea/ absence of strong coastal waves/ deposition faster than removal ***(any 3 x 1 = 3 mks)***

5. (a) Weathering solution in limestone area

Deposition/ by water/ ice

Erosion / by wind/ ice

Meteorite falling

Human activities/ damming/ blowing up of land with explosives

Mass movement (3mks)

(b) Are reservoirs in the water cycle

Support bio- diversity/ support floras and fauna

Enable self – purification of water and air

Modify local weather and climate

Regulation of river flow/ controlling flooding (2mks)

SECTION B

6. (a) Topographical map (1 mk)

(ii) Kilifi and Kwale (2 mks)

(iii) = $39km^2$ + 1

($38.0 – 40.0\ km^2$ (2 mks)

(b) Availability of water for cattle from rivers, e.g. Ngoni (any one named receiver) from seasonal swamps e.g. around Kinangop / South Samburu, from piped water (water pipeline) from dams/ water reservoirs e.g. near Mariakani town/ from waterholes and water tanks e.g. around Mariakani town / wells Availability of suitable vegetation/ pasture for animals. The sqeub thicket. Availability of veterinary services for improved animal husbandry e.g. veterinary investigation laboratory/ cattle dips/ animal research station around Mariakani.

Large tracts of land with sparse settlement providing extensive area for grazing, particularly in the central and western parts of the area.

Availability of transport evidence- roads/ railways, movable tracts gently sloping land

(c)

FUNCTION	**EVIDENCE**
Administrative center	- Chiefs office
Religious centre	- Mosque/ church
Transport / communication centre	- Post office/ railway station/ road
Collection centre/ trading/ commercial	- Store
Education centre	- school (any 3 x 2 = 6 mks)

(d) Difficulties of transport

Long distances from one settlement to another

High temperature

Insect / snake bites

(ii) 8.0 km (7.95.- 8.05)

(iii) 83 m

7 (a) (i) Weathering is the break down/ disintegration and decomposition of rocks in situ while weathered materials under the influence of gravity

(Weathering 2 mks) (Mass wasting 2 mks)

(ii) – Solution - Oxidation - Hydration

Carbonation - Hydrolysis

(b) Due to temperatures changes, soil particles expand and contract hence shift position down slope.

Moisture/ rain water causes soil to become wet and compact. On drying the particles loosen and shift position down slope.

Frost heaving beneath soil perpendicularly under gravity.

Removal of soil on downhill side makes the rest of the soil to shift

Water perforating within the mass regolith may drag individuals gains of soil along with it.

External forces (animals, vehicles, earthquakes) have a trigger effect on soil particles causing a downslide movement (Shacking of the ground

Ploughing on slopes when soil is turned in one direction causes the soils to shift down slope.

(c) Soil creep pushes posts and fences from their original position and become inclined/ breaking of stones

Displacement of fine soil particles down slope leaves the steep upper slops bare and exposed

It causes accumulation of particles at the base of a slope causing deep soils.

Soil creep interferes with structure such as roads, railways, making maintenance expensive

Terrace (step partenned) develop across the slope

The ends of the rock outcraft may be cambered (bend) downsope.

8. (a) (i) Temperature are higher between September and March/ relatively low during April to August

Most of the rainfall is received during the warmer season/ cool season relatively dry/ single maximum R/F regime

The highest temperature are experienced in December (23^0C) / the lowest temperature range is large / 14^0 C

The highest rainfall is received in December (125mm) the lowest June to August (10mm)

There is no distinct dry month

Rainfall is low (6.55mm)

(iii) Scrub/ thicket/bush/ Shrubs

Grass is tall in the wetter areas and short in drier areas

The vegetation in mainly grass

Trees are only found along water courses/ trees scattered

Grass withers during the dry season/ winter but spouts at the beginning of wet season

Acacias

Umbrella shaped trees/ thorny trees

(b) Latitude

Areas near the equator are hotter than those far away from the equator. This is due to a higher concentration of trees in rays per unit area at the equator. The amount of solar insulation decreases polewards since it passes through a longer distance of the atmosphere and therefore more interference.

Altitude

Lowlands are usually warmer than highlands because the atmosphere becomes thinner as the altitude increases where the ground loses heat to enter space faster. Atmosphere pressure decreases with increasing altitude. This is due to the weight of atmospheric air above highlands being less than in lowlands.

Distance from the sea/ continentally

During the hot season, coastal lands are relatively hotter than inland areas on the same latitude due to the existing effect of the sea breezes. By the time the sea breezes. By the time the sea breezes reach inland areas they have adapted to the temperature of the land for which are passing. During the cold season the effects is reversed.

Ocean currents

When winds are on shore warm ocean currents have a warming effect on the adjacent coasts./ Lead to higher rainfall than inland areas/ cool ocean currents have a cooling effects/ drying effect on the adjacent coastlands.

Wind/Air Masses

Warm/ cool winds bring a warming/ cooling influences to a place if they come from a warm / cool zone. Areas under the influence of dry winds have little or no rainfall/ areas under moist winds are usually wet.

Aspect

In the northern hemisphere outside the tropics the non facing slopes are cooler than the south- facing slopes because they do not receive direct solar isolation. (The reverse is true for the southern hemisphere). Windward slopes are generally wetter than leeward slopes because the moisture- laden winds rise and drop their moisture on this side first.

(b) (i) Formulate objectives of the study/ hypothesis

Reading from secondary sources

Carry out a reconnaissance to ensure that the instruments are in a working conditions/ are in their right position

Seek permission from the relevant authority

Procure appropriate stationary

Prepare a table for recording data

Procure the instrument (any 3 x 1 = 3 mks)

(ii) <u>A rain gauge</u> Used to collect rain water

Take the rain water which has collected in the jar/ bottle

Pour the water in the measuring / graduated cylinder

Take the reading

Record the reading in a book / or table (2 mks)

<u>Maximum and minimum thermometer</u>

Used to record/ measure maximum and minimum temperature in a day

Be at the station at the convectional time for taking records

Read the position of the metal indices for both maximum and minimum temperature

Record the readings in a book or table

Reset the thermometer using a magnet (3mks)

(iii) It enables students collects first hand information

Students develop skills of weather observation

Students are able to make their own records of weather

Students are able to apply knowledge learned from books/ classrooms in the field

They'll appreciate the usefulness of weather instruments

9. (a) **X- Atlas Mountains**

Y- Cape ranges

Z- Ethiopian Highlands (3 mks)

(b) (i) Simple fold/ symmetrical/ isoclinal

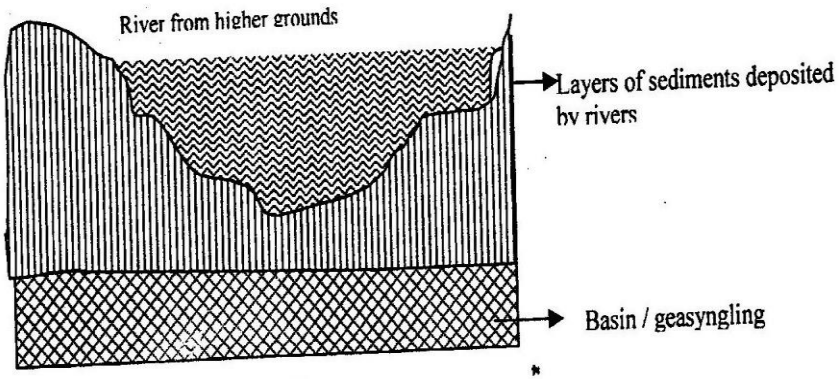
Asymmetrical fold

Over fold

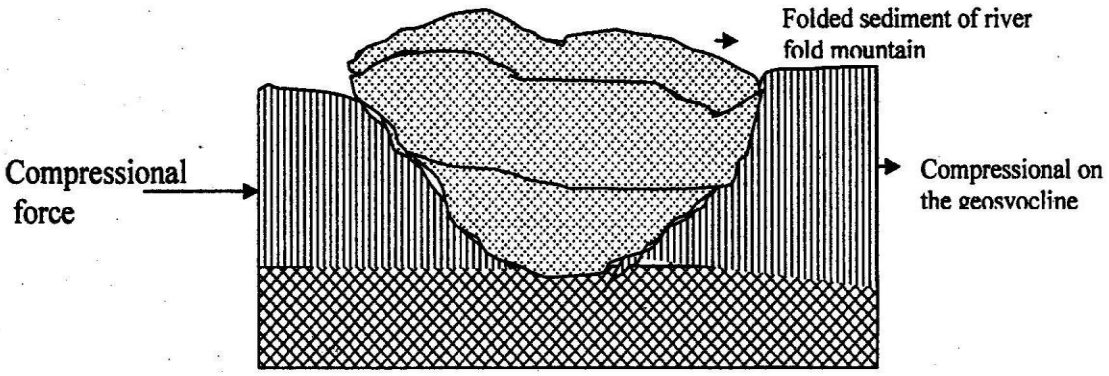
Recumbent fold

Overthrust/ fold thrust/ nappe

Anticlinorium/ synclinorium (4 mks)



(ii)



Geosynclines are formed on the earth's surface

Prolonged and extensive erosion occurs on the surrounding higher grounds

Sediments are deposited in the geosynclines forming thick layers

The weight of the sediments causes subsidence of the geosyncline leading to accumulation of more sediments

Further subsidence of geosyncline triggers off compressional forces, which draw the higher grounds closer

As a result, the sediments are compressed and form folders which are also thrust upwards to form mountains

The main Mt. features are formed at the edge of geosynclines due to closeness to the source of the forests.

(c) (Fold mountains are water catchments areas. They trap rainfall which feed rivers that provide water for domestic use/ for irrigation/ for industrial use/ for HEP generation/ rainfall for Africa

(Fold mountains are often forested and provide valuable timber used in construction and building industry.

Some fold mountains have valuable minerals deposits such as coal and petroleum

Fold mountains attract tourists, thus earning the countries foreign exchange.

Fold mountains influence transport systems either as barriers or as passes. 4 x 2 = 8 mks) **GEOGRAPHY PAPER 312/ 2 K.C.S.E 1998**

MARKING SCHEME

SECTION A

1. **(a) It is the process whereby an increasing of the total population in a country settles in Towns**

   Changes from primary to secondary and tertiary production

   Growth of town in number and size/ process by which population is transferred from rural based agricultural life style to urban based life styles.

   (b) It has deep sheltered harbour

   It has fine weather throughout the year

   It has larger hinter land

   It is located at a straight point on the east

   It is well linked to the interior by railway, road and air

   Early settlement/ Early trade by Arabs/ Old port

2. **(a) The river should have:**

   A narrow valley/ gorge

   Regular / reliable water supply

   Large volume of water

   A hard rock film foundation

   Impervious rocks/ impermeable/ non – porous rocks

   Water fall/ head of water/ steep gradient/ slope

   (b) Fish are caught for human consumption

   The artificial lake for transportation/ road transport

   The lake provides water for domestic use/ industrial use

   The area is a tourist attraction/ provides recreation/ earns foreign exchange

   Water for irrigation

   Employment/ source of income

3. (**a) Motor vehicles are cheaper to buy and maintain than crafts**

   Road transport is more flexible than air transport/ road leads everywhere / carry people/ goods from one place to another

   Construction of roads is cheaper than that of airports

   Fares/ freight charges are lower than that of air transport

   Skills require to operate aircrafts are higher and rare than those required to operate motor vehicles.

(b) It encourages the growth of tourists industry

It promotes horticultural industry. Perishable goods can be transported easily.

It enables cultural exchange between Kenya and other countries

It encourages international trade

It promotes international cooperation/ facilitates emergency services

It earns foreign exchange from industries

4. **Expensive farm inputs/ inadequate capital/ insufficient capital fluctuating prices**

Delayed payments

Prolonged droughts/ unfavourable weather conditions/ heavy rainfall/ frost/ hailstorm/ unreliable rainfall

Pests/ diseases

Pool payments based on pyrethrum content

Mismanagement of funds

5. **(a) It is a careful management/ protection of soil against erosion/ exhaustion**

(b) Ploughing along the contour

Controlling grazing strip cropping Making terraces

Digging cut off drains/ trenches/furrows across the slope

Planting cover crops

Mixed cropping/ intercropping

Agro- forestry

Following field rotation

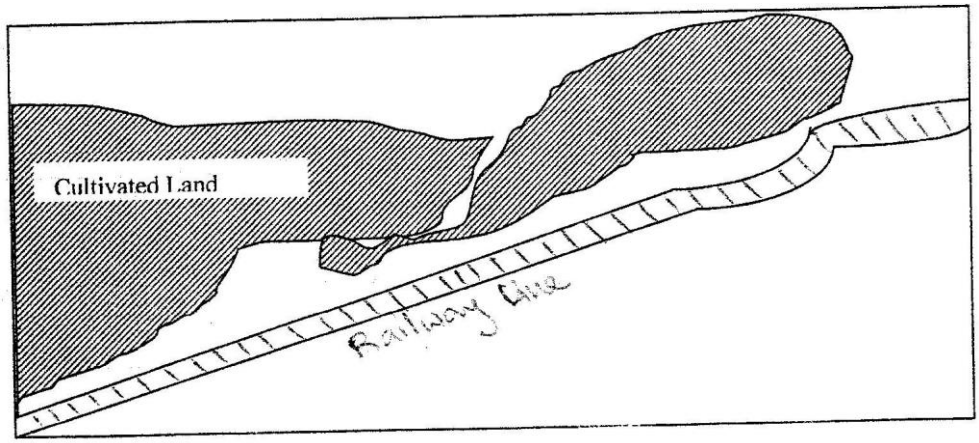
Group rotation

Mulching

Adding fertilizer/ manure

SECTION B

6. a)(i)



(ii) On the railway line (1 mk)

Cultivated land (1mk)

(iii) Coffee

There are shrubs in the right foreground

There are herbs/ grass along the railway line

There are shrubs/ tree hedges separating farms

There are patches of three/ forest in the centre middle ground

There is a stretch of forest in the background

(b) The vegetation has a thick undergrowth/ dense forest which makes penetration/ development of roads difficult.

Uses of tropical hardwoods discourages exploitation. Any 5 x 2 = 10 mks)

(c) Tree planting/ re- afforestation/ -NGO's planting of indigenous species is being encouraged to preserve the endangered species.

People are required to seek permits if they have to cut tree. This reduces the rate of tree felling/ unlicensed people do not cut down tree.

Forest reserves have been set aside to conserve indigenous species.

Forestry department of the Ministry of Natural Resources carry out research to produce and distribute seedlings/ to en sure the extension of forests.

People are being educated through mass media education on the importance of forest conservation

People are being encouraged to use alternative sources of energy saving jikos

7. (a) L- Iron Ore/ Iron

M- Bauxite/ Gold

N- Copper

(ii) P – Johannesburg (3mks)

(b) (i) Alluvial panting/ placer mining/ dredging (1mk)

Opencast methods/ quarrying/ Scrapping

Adit mining/ draft/ horizontal/ Hill slope Burring

(ii) Vertical shafts are sunk/ dug

Horizontal tunnels are dug to reach the mineral

Props are elected to support the roof

The minerals is blasted/ dugout the roof

The mineral is blasted/ dugout/ drilled

It is transported on light rail tracts/ conveyer to the bottom of the surface

Cranes/gedges used to transport the ore to the surface

Gedges are used to transport miners and their equipment

(6x1= 6 mks)

(c) It provides raw materials for manufacturing industrial/chemical/ building and construction industries

Mining stimulates development of transport/ infrastructure communication opening up remote minerals rich areas

The mining industry generates employment opportunities which raise the standards of living for the employees

Mining promotes agriculture by proving markets

Mining facilitates provision of social amenities

Mining encourages development of skills/ technology which can be applied in other sectors of the economy

It leads to settling up other related industry

It is a source of income which raises the standards of living of people selling minerals. *Any 4 x 2 = 8mks)*

(d) Pollution of air/ water/ land noise

Dereliction of land/ ugly surface/ land slide scars

Disruption/ lowering of the water table

Loss of biodiversity/ plants and animals

Leads to soil erosion/ degeneration of soils *Any 4 x 1 = 4 marks)*

8. (a) (i) It is the process of change from primary to secondary and tertiary production/settling up of more industries

(ii) Oil refining - Mombasa

Paper manufacturing – Webuye

Motor vehicle assemble – Nairobi / Mombasa/ Thika

(b) Availability of coal from within the region. Iron are from the Rhine valley and later imported/ limestone provided raw materials needed in the industry.

Presence of navigable river Rhine which provided cheap transport for the bulky raw materials and finished products

Rich merchants and companies provided the capital required for the establishment of the industry

Presence of other industries in the region such as food and textile industries provided industrial inertia.

Coal/ imported petroleum provided power require in the industry river Rhine/ its tributaries provided water required for the cooling in the industry.

The local population had acquired the skills on iron working.

These formed the foundation of iron and steel industry.

Availability of ready market from Western Europe/ Local Market

Tributaries of Rhine e.g Lippe, Ra should be created 5 x 2 = 10 mks

(c) It requires less capital to establish since it is made up of small – scale units

It creates employment for the growing labour force raise the standard of living of the people/ income

It products mainly for the local market thus the country save foreign exchange / earns foreign exchange.

It does not require expensive machinery since production is manual

It facilitates decentralization of industries since it spreads easily thus checking rural urban migration

It produces relatively cheap products that are affordable by many improving the quality migration

It produces relatively cheap products that are affordable by many improving the quality of living

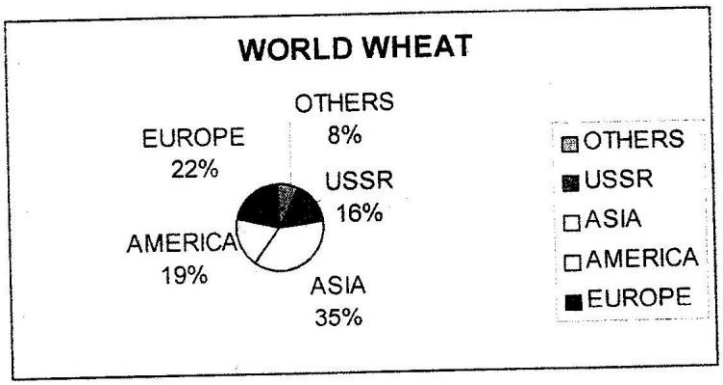
It uses locally available/ scrap metals recycled raw materials thus reducing the cost of imports/ conserves the environment

It imitates the products that are already in the market thus spreading technological skills/ innovations

It operates at grassroots levels thus uses locally available skills

It empowers the people to initiate projects thus reducing reliance/ dependence on the government, donors, self sufficiency.

9. (a)



(b) Name - Alberta - Manitoba - Saskachewan (any 2 x 1 = 2 mks)

(c) Wheat growing areas receives between 500mm and 1270m/ moderate rainfall which enhance growth of wheat

The area experience a warm dry sunny spell which enhance ripening/ harvesting

The area experiences at least three months with temperatures ranging from 15^0C to 20^0C warm temperature which enhance ripening/ harvesting of wheat.

The areas have fertile/ Volcanic soils which sustain high production

The land where wheat is grown is gentle/ fairly undulating level which enables mechanization Any 3 x 2 (6 mks)

(d) Wheat growing in Canada is more mechanized leading to higher production than in Kenya

More capital is available in Canada enabling farmers to sustain production

Farmers in Canada are more experienced Skilled/ Technology long history of wheat production than in Kenya

Advanced scientific research in Canada enables the production of higher yielding seeds better farm inputs control of pests and disease/ overcome limitations of weather

Wheat farmers in Canada specialize in wheat production while in Kenya farmers practice mixed farming

Government policy incentive of subsidization in Canada which is not available in Kenya.

GEOGRAPHY PAPER 312 /1 K.C.S.E 1999
MARKING SCHEME

1. Photographs taken from the outer spaces/ satellite show the curvature of earth

   During the eclipse of the moon, the earth casts a spherical – shaped shadow on the moon

   The earth's horizon is curved as evidence by approaching ships whose funnels and masts appear on the horizon before the rest of the ship is seen from the coast.

   Circumnavigation of the earth along a straight path will spring one back to the same starting point from the opposite direction.

   All others planets including the moon are spherical, therefore the earth's being one in the solar system must be a similar shape.

   The rising and setting of the sun earlier than those to the earths' rotation leads to places in the east seeing the sun earlier than those to the west. If the earth was flat all places would receive sunlight at the same time.

   Any 4x 1 = 4 mks)

2. (a) It should be na open space away from tall objects/ buildings/ trees

   The ground should be level/ gently sloping

   The area should be free from flooding

   The area should have a wide view

   (b) A thermometer/ maximum and minimum/ six's thermometer A hygrometer / wet and dry bulb thermometer

   (c) To enables farmers to plan their farming activities It helps people to plan on suitable clothing for the day

   It influences the design of houses

   It helps in guiding the landing and tacking off of air crafts/ ships

   It helps in guiding tourists activities

   It helps in planning military activities

   It averts natural disasters related to weather (accept any relevant reasons)

3. (a) (i) sea/ lake breeze

   (ii) Land losses heat faster than sea. Air upon the land becomes cooler and heavier than that upon the sea. The relatively warmer air upon the sea is lighter and therefore it rises while the cooler heavier air on the land flows towards the sea to replace the rising air.

   (b) As air rises, it expands thus spreading out its molecules over a wider area and hence becoming cooler.

4. (a) K The horn

L Eddy current

(b) A pre- existing depression/ localized fault is deepened by eddy actin/deflation Gradually the depressions excavated through the removal of the unconsolidated materials/ wind abrasion

The surface is lowered until it reaches the water – bearing rock / aquifer

Water oozes out of the ground and collects in the depression to form an oasis

5. (a) X- a cave

Y – a blowhole

(b) Presence of ample materials to be deposited A (weak) long current/ drift

An indented coastline/ presence of a headland

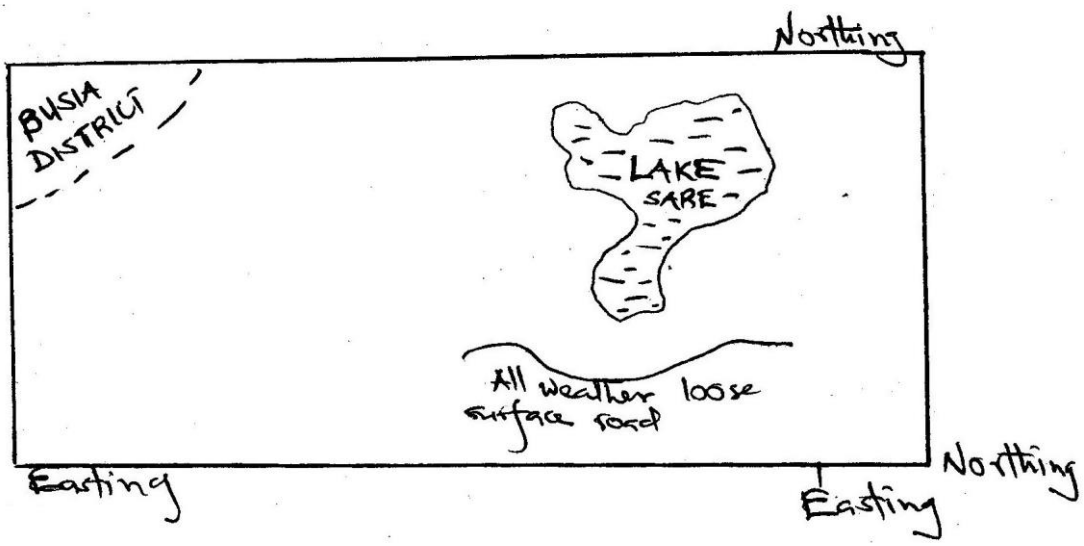
A relatively weak backwash

A shallow continental shelf

SECTION B

6. (a) (i) 129 + 1 128 to 130 (ii) $0^0 00 - 0^0 15$ (south) 15

(b)



(i). Busia District

(ii) Lake sare

(iii) All weather loose surface road

(c) Seasonal rivers

Seasonal swamps

Scattered trees/ scrub vegetation

Presence of water holes/ dams/ ponds

(d) Economic activities

	Evidence
- Crop growing/ grain growing	- Posho mill (grid square 3280)
- Mining	- Gold mine (grid square 3079)
- Trading / Commerce	- Market shops
- Transportation	- all weather road/ Port/ ferry
- Grain milling/ processing	- Posho mill (No evidence no mark)

(e) **The land is generally undulating/ gently sloping the lake basin**

The lowest part of the area, below 1140 metres is the lake basin

There are isolated islands in the lake

There are some isolated hills, e.g. Usenge, Ramogi

There are wider river valleys

The shoreline is irregular/ has many bays

The highest point in the area is 1318m/ the lowest parts are between 1120m and 1140

(f) **Formulate hypothesis/ objectives**

Make a short/ reconnaissance survey of the area to be studied

Prepare a route map

Carrying out literature review/ secondary information

Organize into groups

Make transport arrangements

Prepare the necessary stationery and equipment required

Prepare a working schedule

Seek permission from relevant authorities

7. (a) R- Esker

S- Drumlin

V- Moraine – dammed lake

(b) Gradient / relief of the area should be relatively flat to allow for the accumulation of large sheets of ice and subsequent deposition of fluvioglacial material

Seasonal melting of ice during alternating warm and cold periods allow materials embedded in the ice to be released for deposition

Stagnation of glacier leads to pressure being exerted at the base of glacier which in turn leads to melting of the base of the ice. The melt water then carries and deposits materials underneath the ice mass.

Friction between the moving ice and the surface leads to deposition of the heavy materials beneath the ice mass

Climatic changes/ rising temperatures lead to melting of the ice thereby

Releasing all its load in the lowland *Condition – 1 mk each max 3*

Explanation – 1 mk each max 3

(c) (i) Moraine dammed lake

Widening of a valley through ice erosion/ melting of the ice at the snowline

Deposition of terminal moraine across the widened valley/ at the snowline

Accumulation of the melt water behind the terminal moraine

Continued melting of ice boots the amount of melt water behind the terminal moraine to a moraine – dammed lake (1mk each max 3mk)

8. (a) **Hydraulic action**

Water is forced into cracks on the riverbanks/ water hits the banks

Air in the crack is compressed

As the water retreats, pressure in the cracks is suddenly released

The compression and widening of the cracks repeatedly

The retreating water carries away the loose particles

The force of the moving water and the eddying effect

Sweep away loose materials in the river channel

(ii) **Abrasion**

River water carries sand, gravel and boulders

The load is used as a tool for scouring

The load is hurled by the river water against the banks and drafted along the riverbed

The load chips off rock on the bank and the floor (the size of the load determines the rate of erosion)

The load being dragged smoothens the river bend

Eddy currents rotate rock particles in hollow sand widen them into potholes

(b) (i) Local uplift of land (dynamic rejuvenation) lead to a change in the base level hence the river revives its erosive activities

Lowering of the sea level (Eustatic rejuvenation) creates sharp breaks/ knick points at the river mouth. This leads to revived erosion

Increase in discharge raises the volume of a river thus increasing its erosive power

Presence of a hard rock out crop along the river causes breaks over which a river drops in falls and renews its erosive work.

Presence of a lake in the course of a river causes of static rejuvenation as the river drops over the lower edge of the lake

(ii) River capture may occur by headward extension of the long profile
This happens when rivers are sharing a watershed
The actively eroding river gradually cuts back its slope head until it encroaches upon the divide or watershed of the other river
Eventually the power river reaches the source of the weaker river and diverts its water into its channel
River capture may also occur where there two adjacent rivers
One of the rivers has more erosive power than the other
The more powerful rivers erodes both vertically and laterally faster than the weaker river and diverts its water into its channel
River capture may also occur where there are two adjacent rivers
One of the rivers has more erosive power than the other
The more powerful river erodes away the ridge that separates the two by headward erosion
Eventually it encroaches into the valley of the weaker river diverting its waters into its valley.

(c) (i) L- Centripetal
M- Radial
N- Dentritic

(ii) It is formed in the middle or old stage of a river/ where the valley is wide and gently sloping
The river must be carrying a large load
The river flows sluggish/ at a low velocity
The river deposits its load on the bed
The river bed is gradually raised blocking the flow
The river bed subdivides into channel/ distributaries/ braids across the deposits

9. (a) (i) X – Rainforest
Y – Bamboo forest
Z – Health and moorland

(ii) Acacia trees are common/ dominant species
Savanna trees are common / dominant species
In the wetter areas the grass is tall and close together
The grass dominates the undergrowth (in the woodlands)
In the drier areas, the grass is shorter and tufted
Grass dominates the vegetation
The trees are shorter more scattered
The trees are umbrella shaped
Some trees are stunted and have scaly barks/ drought resistance
River valleys have tall trees and thick bushes/ riverine vegetation

During the wet season, the grass withers away/ trees shed their leaves/trees are deciduous

During the dry season, the grass sprouts and the dormant seeds germinate.

Some trees/ shrub are deep rooted

Some trees i.e baobab have thick back/ trunks

(iii) The temperatures are too low to support plant growth

There is no soil to support plants/ bare rock Water is always in a frozen state.

(b) The frequent outbreak of bush fires destroys the grass retarding its regeneration

The increasing human population is encroaching into the grasslands replacing them with settlements and cultivated land

Pests such as armyworms/ locusts destroy the grass reducing the rate of growth and regeneration

Frequent droughts experienced in the country destroy the grass and the vegetation degenerates into a semi – desert type.

Wild and domestic animals over graze and cause stunted growth of grass

(c) (i) To find the types of vegetation at different altitudes

To find out the changing characteristics of vegetation at different altitudes

To find out the species of trees/ grass at different heights

To find out other factors influencing vegetation distribution other than altitude

Accept other relevant objections

(ii) Taking photographs

- Tallying
- Field sketching
- Tape recording
- Note taking
- Tabulation
- Labeling samples
- Filling in questionnaires
- (Any 3 x 1 = 3 mks)

(iii) Density maps/ chlopleth Distribution map (1 mk each) 2mks)

GEOGRAPHY PAPER 312/2 K.C.S.E 1999
MARKING SCHEME
SECTION A

1. To protect the endangered animals/ Plant species To promote tourism/ tourist
   To generate foreign exchange/ revenue
   To keep them from posterity/ future generations
   To sustain the raw materials for supply of drugs
   For education/ research purposes
   For aesthetic value/ beauty

2. Poor marketing strategies
   High prices of poultry feeds/ other farm inputs of vaccines
   Competition from other sources of protein and competition among farmers/ countries
   The intensive care requirement
   Diseases/ pests/ new cattle/ fowl pox/ fowl typhoid/ avain luekosi/ coccidiosos/ fleas/worms
   Inadequate initial capital
   Inadequate knowledge about poultry keeping

3. (a) (i) Provision of water for domestic use Provision for water for irrigation
   The dams serves as bridge across the river
   The dams and the reservoirs are tourists attractions
   The reservoirs have modified the local climate Control of floods

   (ii) Changes in the river regime/ fluctuation/ seasonality
   Poor maintenance of the machinery at the powerhouses
   Sitting of reservoirs
   Inadequate capital to purchases spare parts

   (b) Limited number of suitable sites
   Inadequate capital investment
   Scarcity of skilled labour

4. (a) Railways can carry more goods over long distances at once
   Railway are cheaper than roads
   Railways are less susceptible to traffic jams
   Once built, railways do not require frequent relaying unlike roads, which are frequently resurfaced
   Railways are more efficient because they operate on rigid timetable Railways are free to accidents

(b) (i) X - Nakuru
Y – Eldoret

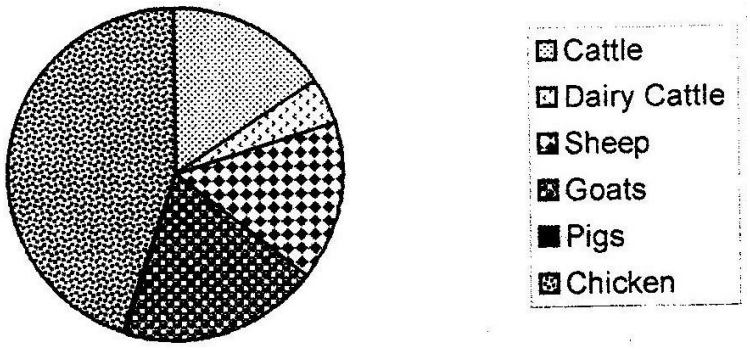
(ii) They are expensive to maintain
They are not flexible
They do not serve intermediate locations
They can cause excessive loss incase of leakages
A pipe can be used only for one type of oil product at a time.

5. (a) Lightening
Strong winds
Hailstorms
Dust storms
Pest/ diseases/ cholera/ typhoid/ malaria
Floods
Landslide
Pollution Garbage
Soil erosion
Fire (any 2 x 1 = 2mks)

(b) Population pressure/ clearing of forests for farming/ settlement Climatic changes/ Global warming/ direction of Ozone layer
Accidental fires
Poor methods of farming/ overgrazing

SECTION B

6. (a)



(b) Sheep survive in a variety of climatic conditions while dairy cattle are restricted to cool and wet climate
The farm inputs required for dairy cattle are more expensive than those for sheep
Some breeds of sheep are more resistant to diseases that dairy cattle thus they are more widespread.
The management of dairy cattle is more demanding than that of sheep

(c) The government has set up demonstrations ranches to educate the pastoralists on better ways of keeping livestock cattle dips have been constructed to control pests

Extension services are provided to give advice to the pastoralists

Boreholes and dams have been constructed to provide water for their livestock

Roads have been constructed to enable the pastoralists to transport their produce to markets

Through formal education, the pastoralists have learnt the advantage of keeping manageable sizes of herds

The government encourages ranching to enable the pastoralists to view livestock Keeping as a commercial undertaking

Replacement of coarse grasses with alfalfa and corn has improved the quality of pastures of the beef cattle.

Crossbreeding of traditional with higher quality breeds/ Hereford Aberdeen

Angus shorthorn has improved the quality of the yields

The maritime climate of the area makes grazing of cattle possible throughout the Year

Availability of water supplied using wind pumps ensures constant supply of water for cattle

Availability of vast lands suitable for cattle grazing encourages beef ranching

Availability of market both local and external encourages the farmers to expand the beef industry/ sustains the industry.

Availability of refrigeration facilities enables beef to reach far off markets in good condition.

7. (a) Describe the characteristics of the population represented by the pyramid The number of male and female population is almost equal at all levels

From 0- 14 years, the population is low

From 14 -44 the population is high

The ageing population is low

The population has high life expectancy

The dependency ration is low

The population has a low birthrate

The population has a low death rates

(b) There is likely to be unemployment rate/ job opportunities do not increase at a rate that can cope with the increasing number of job seekers/ low standard living.

The government is not able to provide adequate social amenities

It nay lead to a high dependency ratio which will show down the economic growth

Strain on natural resources/ scarcity of land which would lead to landlessness and land fragmentation

There would be food production/ food shortages

(c) Improving medical facilities/ immunization of children to control diseases

This has created a healthy/ environment for child survival

Providing more education opportunities for parents ensures better care for their children e.g. in providing balanced diet

Introduction of family planning programs has led to emergence of manageable sizes of families which promotes higher chances of child survival

Carrying out research on infant related diseases to cope up with ways of controlling then ensures higher chances of survival

(d) Presence of large towns with industries has attracted large numbers of job seekers

High rainfall which influences production of a wide variety of crops hence sufficient food.

Fertile and which attracts settlements / farming

High fertility rate leads to a high natural increase

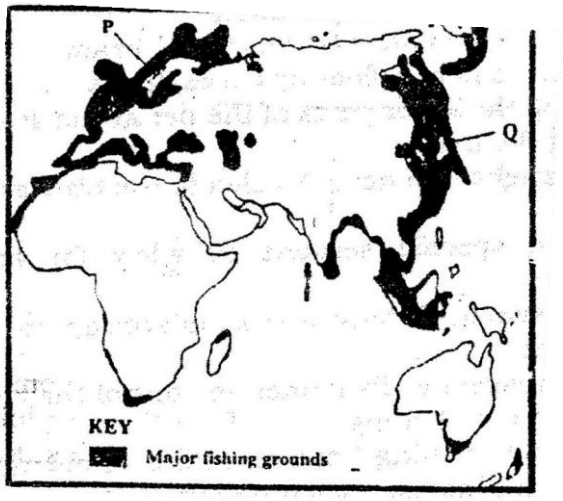
The fairly level land encourages agriculture/ settlement

Increased commercial activities e.g. trade attract a large number of population

Early settlement in the region encouraged growth of towns which formed a focus for migration

Developed communication has enhanced movement in the area.

8. (a) (i)

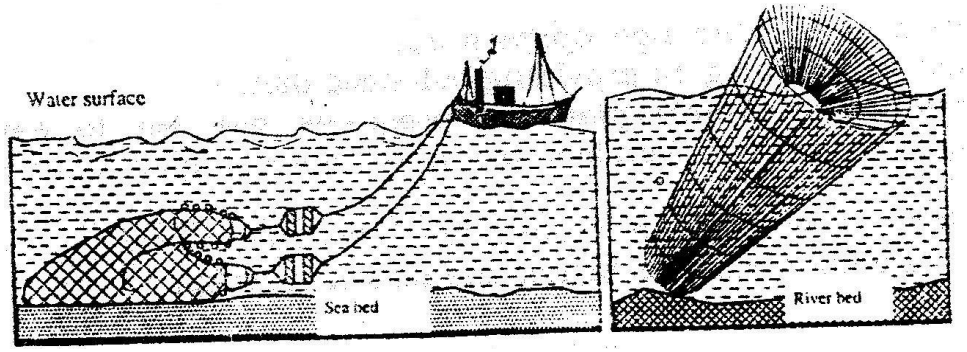


P- Norway Q- Japan

(ii) The area has cool waters which have abundant supply of plantation which is the main food for fish

- The areas have shallow continental shelves which allow light to penetrate to the sea below encouraging the growth of micro- organisms used as food by fish
- The areas experience convergence of warm and cool currents which result in upwelling of ocean waters thus bringing minerals for fish and plankton from the sea bed to the surface
- Most of the coast are indented/ have numerous sheltered bays which provide secure breeding grounds for fish.
- The shelters bays provide suitable sites for building fishing ports/ fish landing sites
- The large population in these area limits agricultural activities thus people turn to fishing as an alternative economic activity/ cold climate also limit agriculture
- Cold climate provides natural preservation of fish

(b)



(iii)R – Trawling S – Basket fishing

(IV)

Basket fishing

- The basket funnel shaped to allow easy entry for fish
- At the mouth there is a non- return valve which restricts the outward/ escape movement of fish once inside the basket it is held in position with tropes/ stones/ sticks to prevent it from being swept downstream
- The basket is left in that position for sometime/ overnight then removed for landing the fish

Trawling

- A bag – shaped net is attracted to a ship – trawler
- The nets mouth is kept open by otter boards/ head beam
- The upper part of the net is kept a float by corks/ floats

- Weights are used to keep the lower parts of the net at the seabed
- The trawler drags along the net
- After sufficient fish is caught, the net is hauled to the trawler

(c) Fishing is restricted to specific seasons to allow for breeding and maturing of fish

- The size if the nets used in fishing are standardized to ensure that fingerlings are not caught
- Licenses are issued to prospective fishermen to control their number and to ensure that there is no over fishing
- The law of the sea restricts fishing in the exclusive economic zones/ this ensure the protection of marines fisheries from external exploitation
- Fish farming is being encouraged to ensure that there is sufficient supply of fish from other sources other than the natural fisheries
- There is restriction of the water remain artificial fertilization is carried out is special hatcheries to sustain the supply of fish/ restocking of over fished waters

9. (a)

(i)

W- Kapenguria/ Kitale/Cherangani/ Mt. Elgon

X-Kericho/ Kisii /Nyamira/ Bomet / Gucha / Buret

Y – Meru / Embu / Nyeri / Kirinyaga / Mt. Kenya region / Nyambene

(ii)

- Cool/ warm temperatures throughout the years during the growing period
- High rainfall 1000 – 2000 mm of rain
- Well distributed rainfall throughout the year
- The areas are frost free
- The tea growing areas have deep soils
- The areas have well drained/ soil have gently sloping land

(c) (i) 136,000

$$\frac{56{,}000}{81{,}000} \times \frac{81{,}000}{56{,}000} \times 100$$

= 144.6% increase 145%

(ii)

- Expansion of tea growing areas and the establishment of the Nyayo tea zones
- Increase in the number of small – scale tea farms in the country
- Improved marketing strategies through KTDA
- Expansion / increase in the number of tea factories

(d) When the business are ready only the two top eaves and a bud/ flush are picked

- The green leaves are transported in airy baskets to a collecting centre/ for weighing
- The weighed leaves are transported by lorries fitted with bags to the processing factories and the tea leaves are again weighed in factory
- The tea leaves are again weighed in factory
- The leaves are then dried by blasts of warm air from beneath the trays
- The dry leaves are passed through a set of rollers to chop stem/ the leaves are crushed
- The leaves are placed in containers for fermenting, reducing tannic acid and changing the colour to grey – brown
- The leaves are passed through a conveyor belt which takes them to a tunnel which is at a temperature of 100^0C roasting/ dry based after which they turn black
- The leaves are sifted grading tasted for classification
- The graded tea is packed tea chest for export and small packages for a local market.

(d)

- Proof feeder roads in the growing areas lead to delays in collection delivery of the green leaf hence causing wastage
- Delayed payments for the tea delivered mismanagement of funds lowers the morale of the farmers]
- Long droughts/ hailstorms lead to destruction of the crop/ lower the quality and the quantity of the yield
- Fluctuation of prices in the world market makes it difficult for the farmers to plan a head

  High prices of farm inputs/ reduce the farmers profit margin/ leads to low yields as some farmers cannot afford

GEOGRAPHY PAPER 311/2 K.C.S.E 2000
MARKING SCHEME
SECTION A

1. (a)
   - Temperature
   - Rainfall
   - Humidity
   - Wind
   - Atmospheric pressure
   - Cloud cover
   - Sunshine

   (b)
   - Use of defective instruments
   - Human error
   - Interference with the instrument
   - Poor siting of weather station
   - Extreme weather conditions
   - Natural calamities

2. (a)
   - Heavy rainfall/ high amount/ high intensity
   - Low rate of evaporation
   - Sloping ground/ steep slopes
   - Presence of impervious rocks/ soil surface
   - Bare surfaces/ absence of vegetation

   (b)
   - X – Resistant rock/ sill/ caprock
   - Y – Plunge Dome
   - Z – Rock Boulder

3. (a)
   - Rise in the sea level

- Depression of the coastlands/ subsidence of the coastal lands
- Flooding along the coast

(b)

- Fjords
- Rias /creeks
- Islands
- Estuaries
- Sounds
- Broad continental shelf

4. (a)

- Soil is an accumulation of rock particle, minerals, organic matter, water and air found on the surface of the earth
- It is the superficial layer of loose unconsolidated rock material overlaying the crust rock and on which plants grow

(b)

Profile		Part of cross – section
R	----------	Valley with papyrus swamp
S	----------	Flat topped hill
T	----------	Slope

5. (a)

P	----------	Horn/ pyramidal peak
Q	----------	Arete
R	----------	Hanging valley

(a) By abrasion & plucking the valley is widened & deepened

- Pre- existing V- shaped valley is filled with ice
- Glacier erode the V- shaped valley
- The spurs are truncated

SECTION B

6. (a) (i) - 290 degrees
(ii) - 1000m above sea level
(iii) - 12.3 km or 12.2 km or 12.4 km

(b)

- The drainage features consist of rivers/ a dam/ reservoir/ and a swamp
- Most of the rivers rise form the Aberdare forest and generally flow eastwards
- The main rivers have tributaries which form dendritic pattern
- The major river flow parallel to each other/ form parallel pattern
- The rivers have numerous bend/ meanders along their courses
- All rivers are permanent • Rivers are many/ numerous

(c) (i) a road (ii) a forest (iii) a river

(d)

- There are few settlements in the forested areas
- Most settlements are found along the roads and motorable tracks
- There are few settlement along the rivers
- The swampy area has no settlement
- Karima hill has no settlement
- There are no settlement on the ridges than on the valleys
- There are more settlement on the Eastern part than on the Western part of the area covered by the map/ higher parts fewer people than the lower parts
- There are clusters of settlements at shopping/ market centers
- East of easting 70 is densely settled
- The central part (btn Easting 60 – 70) is moderately settled
- West of Eastings 60 is sparsely populated (5 mks)

(c) (i) The area lies between 1700 and 1900 metres above sea level as indicated by the contours. This altitude allows coffee growing

The area is well drained as indicted by the numerous ridges and the absence of swamps/sloping ground as evidenced by close contours

- The area receives high rainfall throughout the year as indicated by the presence of numerous permanent rivers and presence of forest
- Availability of transport evidenced by many roads
- Availability of labour evidenced by dense settlement
- Availability of water for irrigation (evidence)reservoir

(5mks)

(ii) Fishing
Tading
Quarrying
Tourism
Transportation
Processing
Forestry

7a) CONTRAST

Plutonic rocks	Volcanic rocks
-Form from magma	-Form from lava
-Formed deep inside the crust/intrusive/ Extrusive	-Formed in surface
- Cools slowly	-Cools rapidly
-Forms large cry/course grained	-Forms small crystals
-Coarse textured	-Fine textured

(b)

- The lava is ultra basic/ extremely fluid / of low viscosity

The lave flows over long distances spreading evenly over large areas before cooling

The lava cools slowly forming an extensive plateau.

The plateau may form through a series of eruption which results in thick layers of lava.

(d) (i)

- Hot springs
- Crater/Caldera /crate lake
- Volcanic cones/volcanic mountains
- Lava plateaus / plains lava
- Ash and cinder cones
- Plug domes / spines
- Fuma roles / solfatara

(ii)

- Some volcanic features create barriers making the construction of communication lines expensive
- The rugged nature of volcanic landscape make settlement and agriculture difficult
- Volcanic mountain range create rain shadow effect which results into aridity

- Recent volcanic lava flows have poorly developed soils unsuitable for agriculture

(d) (iii)

- To help in designing the research methods to be used during the study
- To help formulate relevant hypothesis for the study
- To help in working out a programmed/ schedule for the field study
- To help in identifying the appropriate equipment/instruments to be used in the study
- To help in identifying the features and their location before the study tour
- To help in identifying the features and their location before the study tour
- To help get contracts/guides for the study
- To identify problems likely to be encourage **iv) A hammer**

For breaking rocks for closer examination

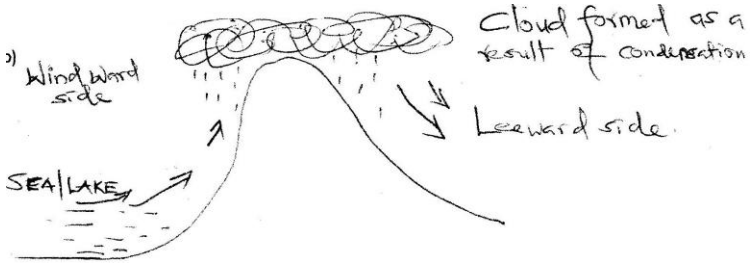
A polythene bag

For carrying samples for subsequent studies

8. a)

- It is a zone of low atmospheric pressure/doldrums
- It is a zone within the tropics/between 23.5N and 23.5s
- It is a zone where north-east and south-east trade winds converge
- It migrates to the south and the north with the apparent movement of the sun
- It is associated with conventional rain and thunderstorms
- Characterized by high temperatures

b)



- A water body/ sea/ lake /is heated and causing evaporation of water
- Moist air from the sea is forced to ascend up a hill/mountain-side
- Forced ascent leads to cooling of air

- The moisture in the air condenses forming clouds
- Rainfalls mainly on the windward side of the hill/mountain
- Descending air warms up the leeward side of the mountain

Text -1mk max-4

Diagram` ½ mk each max -2

c)

- Low annual rainfall(less than 250mm) dry climate
- Occasional flash floods /sporadic rains
- Clear skies /clear sunny days /high terrestrial radiation
- High temperatures during the day
- A large diunal
- Strong winds
- Develops low pressure in summer and high pressure in winter
- High mean annual temperature
- Large mean annual range of temperature
- Intense solar isolation
- Unreliable rainfall
- Low humidity
- High evaporation rate
- Sudden rainfall

d) (i) Familiarize with the route

Sample different areas with different climate/vegetation

To identify pertinent areas to visit.

(ii) Spatial Non Spatial

(i) It saves time

(iv) It teaches learners the summary aspect of learning

Saves energy since whole district not studied

(v) Tabulating Tallying Taking photography

9. (a)

(i) Warping of land during volcanic activities in the rift valley

(ii) Receive frontal rainfall (high) Good soil for farming

(b) They are served by inlet and outlet

Little or no volcanic activities still going on

(c) Fishing Transport Sports Irrigation

(d) (i) Deforestation: Rivers pouring water into lakes dry up as their sources are interfered with leading to low water levels in the lakes.

(iv) Industrialization: Water matter/ sewage is let to is let to spill in lakes polluting the water.

(v) Water weeds Depletion of fish bleeding grounds affected transportation

GEOGRAPHY PAPER 312/ K.C.S.E 2000
MARKING SCHEME
SECTION A

1.

- The trees are conical in shape
- They occur in pare stands
- They grow tall and straight
- They have needle- like leaves
- They bear cones
- The forests are evergreen
- The forest have no undergrowth
- The trees have thick barks
- They have shallow roots

2. (a)

- Devegetation clearing of vegetation/ deforestation
- Overgrazing/ overstocking
- Fire outbreak
- Over cropping / monocropping/ monoculture
- Ploughing across the contours/ up-down the slope (along slope)
- Mining/ quarrying
- Cultivating along banks

(b)

- To maintain source of food supply/ maintain soil fertility
- To preserve genetic resources
-
-

.

-
-
- Protecting water catchments areas/ for aesthetic value
- For preventing desertification
- To sustain sources of raw materials for industries
- To preserve cultural heritage
- For medicinal value
- For keeping air clean
- For maintaining natural habitat for wild animals and plants
- Modification of climate

3. (a)

- High temperature / $20^0 – 27^0$C) throughout the year
- High rainfall (1200 – 1500mm)
- Undulating / Flat land
- Fertile soils – Allurial/ clay/ black cotton
  Well drained
  Deep soils

(b)
Burning of cane by arsonists/ fire outbreak
Delays in harvesting of sugar cane

- Flooding of the local market with cheap imported sugar
- Delayed payment to farmers
- Poor management of sugar cane factories/ cooperatives
- High cost of farming inputs
- Diseases ratoon stunting diseases/ smut/ mosaic/ yellow wilt/ leaf spot
- Over production
- Pest- white scales/ white grubs/ termites

.

- Competition for land from other crops

4. (a)
   - Central/ commercial business district
   - Residential zone
   - Manufacturing / industrial zone

   (b)
   - It would help to ease traffic congestion
   - It would help safe fuel/ petrol
   - Have room for parking required
   - Financial saving will be realized/ government save forex (less imports by commuters)

5. (a)
   - Water/ tides/Biomass
   - Wind/ water/ charcoal
   - Drought/ Sun/ Animals
   - Steanl/ steam/ Geothermal / Hot springs

   (b)
   - Inadequate capital to invest in coal mining
   - The low local demand for coal
   - The coal reserves are found for from the potential market/ remote areas
   - Availability of cheaper alternative sources of energy/ oil/ Hep
   - Poor quality of coal
   - Low quantities of coal reserves

- •
-

.

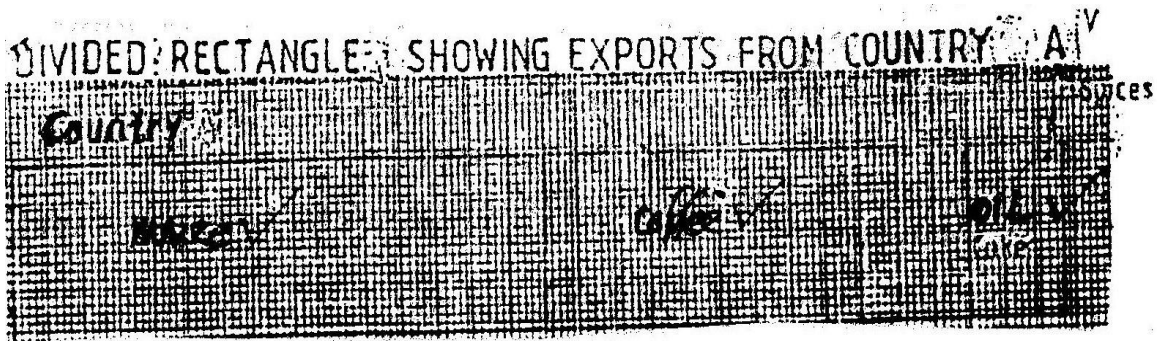
-
-

SECTION B

6. (a) (i) A- Maize
B- Fertilizer

(ii) A- $\frac{750 \times 100}{24900}$ = 3.01% / 3,012% / 3.00%

B- $\frac{2100 \times 100}{17800}$ = 11.79% / 11.8% / 11.797%



Title = 1 mark
Segments = 1 mark each
Rectangles = 1 mark
Calculations = ½ mark each

Country A

Maize

$\frac{12600}{24900} \times 15$ = 7.59 cm / 7.590 / 7.6 (½ mark)

Coffee

$\frac{9990}{24900} \times 15$ = 6.01 cm /6.018cm / 6cm/ 6.02cm (½ mark)

Oil cakes

$\frac{1560}{} \times 15$ = 0.93 cm / 0.939 / 0.94 / 0.9 (½ mark)

.

24900

Spices

750 x 15 = 0.45 cm / 0. 451 / 0.5 / 0.452 (½ mark)
24900

(c)

It gives clear visual impression of individual component
It allows for comparison
It is easy to construct

• •
•

.

- •
- Can be used to represent a wide range of data / easy to draw
  It would enable both countries to earn income/ foreign exchange
  It would stimulate exploitation of resources
- There would be a sustained market since the two countries are producing different goods
- It would encourage improvement of communication between the two countries
- Employment
- Relations
- The trade would create employment opportunities in both countries
- It would improve relations between the two countries

(d)

- The vertical scale starts at 0 Zero / Origin
- The axes must be clearly labeled / Key
- The independent variables are usually on the horizontal axis (x) vertical axis dependant variables (y)
- The bars must be distinct / clear
- It must give the correct impression
- It must have a comprehensive title
- It must have a scale
- Bars must be of the same width

7. (a)

- Protective dykes/ sea walls are constructed enclosing the part of the sea to be reclaimed
- Ring canals are constructed

- •
-

.

-
-
- Pumping stations are installed to pump out sea water from the area enclosed by the dyke
- Water is pumped out of the area enclosed by the dyke
- Reeds are sown to help out the soil
- Drainage ditches and more pumping stations are made on the land being reclaimed
- Drainage pipes are laid below the soil
- The area is divided into regular portions using inner dykes and ring canals • Soils treated with chemical to lower salinity
- The drained land is flushed with fresh water to remove salt from the soil
- Pumping out water from the polders is a continuous process to prevent water from accumulating
- Sequence must be followed

(b)

Reclamation cerates more land for agriculture / settlement

Reclaimed land has improved agricultural output hence more food

More raw materials for industries

Land reclamation has resulted in improved fresh water/ supply for domestic and industrial use/ irrigation

Construction of dykes/ walls around the polders has helped control floods/ sea invasion

- Construction of dykes and canals has improved road transport network
- Reclamation has created sceneries that have become tourists attractions
- Improved social amenities
- Reclamation and associated activities have created more employment opportunities and improved the standard of living of citizens

- •
-

.

• •

•

(c) (i)

- Gently sloping land which permits flow of water by gravity hence reducing the costs of pumping water to the fields
- Presence of clay soil/ black cotton soils which retain water for longer use by crops
- Presence of river/ reservoirs/ lake which provide regular water supply/ permanent/ constant making it possible to irrigate land throughout the year
- High temperatures throughout the year which allows multiple cropping continuous farming activities throughout the year
- Availability of large tracts of land makes the project viable
- Sparsely populated land reduces cost of resettlement / Provides land for large scale farming

(ii)

- Siltation of canals/ pipes/ reservoirs
- High rate of evaporation
- Salinisation of the soil
- Presence of pests
- Clogging up of canals by water weeds
- Presence of waterborne diseases/ bilharzias
- Fluctuating regimes of rivers/ water for irrigation
- Poor marketing strategies • Land tenure problems
- Low pricing for the crops
- Delayed payments
- Mismanagement
- Expensive farm in pure/ inadequate capital
- Delayed payments
- Expensive farm inputs

.

•

•

8. (a)

• Diversity- to diversify her economy
Employment - to create more employment opportunities
Self sufficiency- For self sufficiency/ reduce importation/ save foreign exchange
Use resources – To make maximum use of her resources/ raw materials
Standard of – To uplift the standard of living of the citizens
Value/ quality – to be able to increase the value of her exports/ quality
B.O – To improve balance her trade

(b)

• Water is used for cooling machines to avoid damage by heat
• Some industries require water as a medium through which they dispose off their waste materials / heat
• Water is used for grading of coffee beans
• Some industries located near large rivers which provided power to turn the machines
• Cheap means of transport
• Some industries such as breweries use water as a raw material
• Water is needed in industries for cleaning e.g

(i) Raw materials as part of processing / improve the quality of the final product/ fermentation to improve quality/ pulp and paper making/ clean forms
(ii) The finished products to make them presentable / attractive
(iii) Machines as part of normal maintenance

(c) (i)

• It would encourage regional equality development / Dev. of infrastructure social amenity in rural areas
• It would create employment in the rural areas
• It would reduce rural – urban immigration

• •

•

.

- It would allow greater exploitation of local resources
- Reduces risks during calamities
- Reduce strain on social amenities in urban centers
- It would raise the standard of living of people in rural areas
- It would help reduce congestion in urban centers

(ii)

- Interdependence – Some industries depend on each other for raw materials / market services, hence it is difficult to separate / relocate them
- Low market – Inadequate marketing the rural areas / other areas / discourages investors from locating industries away from urban centers
- Poor transport – some private investors are discouraged by poor transport facilities/ poor infrastructure in the rural area/ remoteness of some areas.
- Insecurity – Insecurity is some areas discourages investment in such areas
- Collapse of industries in rural areas discourage fresh investment in similar industries.

(d)

- They are owned by families
- They depend on family labour
- They use locally available raw materials

.

- They sell their products mainly to the local markets
- They require relatively little capital investment / are small scale
- They rely on simple equipments
- They are labour intensive
- They are ubiquitous / found almost throughout the country

9. (a) (i)

Sisal	-	Coconut
Jute	-	Palm (raffia)
Flax	-	Sunn
Kapok	-	China grass

(ii)

- Warm / High/ Hot temperatures 15 – 30^0C
- Plenty of sunshine during the growing period
- Moderate/ light rainfall / 510 – 1115mm
- A long growing period with at least 200 frost free days
- Dry sunny period for harvesting

Any 2 x 1 = 2 marks)

(b)

Kenya	U.S.A
- Growing on small scale	Growing on large scale
- Manual/ hand labour	Mechanized labour
- Mainly rain fed	Mainly irrigated
- Grown on varied terrain	Grown on gently sloping land
- Inter cropped	Monoculture

Complete comparison 2 marks each

(c)

- The government organizes shows/ demonstrations for cotton farmers to learn the latest development on cotton growing
- The government finances research for high yielding cotton varieties/ pests/ diseases control/ extension of cotton growing areas (ecological regions)
- It facilitates setting up of co-operatives/ cotton lint and seed marketing board to enable cotton farmers acquire farm inputs/ marketing

.

- It provides extension services to offer advice on cotton farming

(d) (i)

- It is used for making thread
- It is used for surgical purposes/ laboratory use
- It is used for packaging
- It is used for sanitary purposes
- It is used for making furnishing / dolls
- It is used for insulator
- It is used for making floor rags/ carpets
- It is used for decorating Christmas trees

(ii)

- Competition from imported second hand clothes has reduced market for locally produced textiles
- The decline in the production of cotton has undermined the textile industry
- Industries rely on expensive imported fibres which leads to the production of expensive products that cannot complete / importation of cheaper/ new clothes or textiles
- Mismanagement of textiles factories low profit margin/ has led to closures of some factories

  The decline in the economy has led to flight of investments capital to other countries leading to the declined of the industry.

.

GEOGRAPHY 312 /1 K.C.S.E 2001
MARKING SCHEME
SECTION A

1. (a) (i) 21st March and 23rd September

(ii)

- Because earth is titled on its axis
- Because of the apparent movement of the sun within the tropics
- Because of the regulation of the earth

(iii) = $\frac{366}{4}$ x 3 = 274 ½ days / 274.5 days

(iv) Summer

2. (a)

- There must be clear sky/ absence of clouds (to permit free terrestrial radiation)
- There must be sufficient moisture in the air
- The air must be cooled below dew point
- The wind must be light/ calm

(b) (i) R- Cumulus

(ii)

- Thunder and lighting
- Hailstones
- Heavy rainfall
- Dark clouds

3. (a) It is the breaking down/ disintegration of rocks into smaller particles without altering the minerals composition of the rock/ breaking down or rocks by physical force

4. (a)

- Rainfall is low/ below 250mm per year / dry climate

.

- Rainfall is erratic/ flash floods and sporadic rain/ unreliable
- Temperature are high throughout the year/ over 300C/ hot climate
- Intense solar radiation
- The diurnal range of temperature is very large/ very hot days and cool and nights
- High rate of evaporation
- Skies are always cloudless/ clear sunny days/ high terrestrial/ radiation

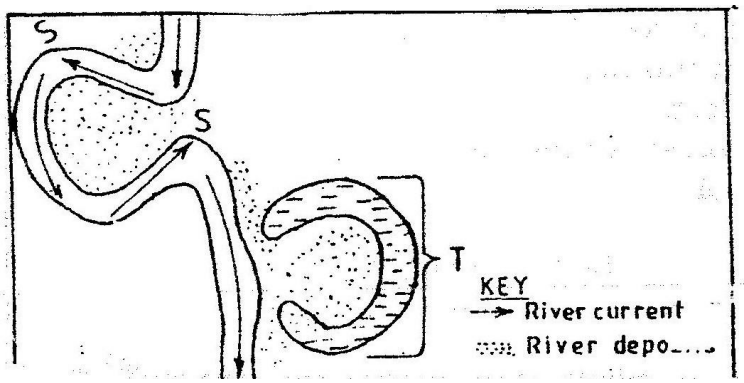
(b)

- Some have long roots to tap underground water
- Some have small waxy leaves to reduce transpiration
- Some trees shed their leaves during dry seasons
- Some plants have thick barks stems/ leaves to sore water
- Some plants produce seeds that lie dormant awaiting rains
- Some trees are umbrella- shaped to produce shade to the stem roots
- Some plants have quick recovery ability after wilting
- Some are halophytic/ salt tolerant to survive in areas of poor drainage

5. (a)

- They are river embankments/ raised rivers banks made of alluvial deposits (on the sides of a river channel within the flood plain)

(b) (i)



.

Old stage / senile stage / plain stage

(ii) S. Erosion

(iii) T. Ox – bow/ Meander / Lake cut off

SECTION B

Answer question 6 and any other two questions in this section

6. (a) (i) Between 2660 and 2680 above sea level

(ii) 5.6 km (0.1) (5.5 – 5.7 Km)

(iii)Escarpment steep slopes / Kijabe hill

(b)

- The main drainage feature are rivers, and are many
- There are also hot springs
- Most of the rivers are permanent
- Rivers originating from Kijabe hill are short and disappear underground
- Rivers on Kijabe hill form parallel and radial drainage pattern
- Most rivers from dendrite patter
- Main rivers are upper Ewaso Kedong and Bathi which flow southwards while river Gatamaiyu and its tributaries flow South – Eastwards
- Most rivers are in Their youthful stage
- There are more rivers to the East of the escarpment

(c)

- Most of the settlement are found at the foot of the escarpment because the land is gently sloping
- The escarpment has no settlement because the land is steep
- Kijabe hill has a few settlement on the eastern side because the land is gently slopping/ the Western side of the hill has no settlement as the land is steep
- The land immediate to the east of the escarpment has many settlement because it is plateau/ gently sloping

(d) Economic activities Evidence

- Forestry / raw industry/ lumbering - Forest station/ forest guard post/ saw mills
- Cattle keeping/ livestock rearing / dairy - Dairy/ cattle dip
- Quarrying - Qua murram pit

.

-Transportation	- Road/ Railway/ Tracks/ foot path
-Trading/ commerce	- Shops/ stores/ petrol station/ post office/ post house
- Processing/ manufacturing	- Kagwe carbacid plant
- Farming/ Agriculture	- Plantations

(c) (i)

- Assemble equipment
- Depart for the area of study
- Arrive at the area of study
- Report to the forest authorities
- Embark on data collection
- Report back to the forest authorities
- Report back to school

(ii) Save on time Save on energy

Teach the learners the art of swimming

- They will be able to identify the tree species that are suitable for the area
- They will be able to work out solutions to the problems affecting the forest
- The community will use the report to identify the importance of conserving forests
- People will be able to adopt appropriate methods of utilizing the forest sustainable

7. (a) (i) A rock is a substance made up of a mineral / combination of mineral particle cemented together and forms the solid part of the earth's crust.

(ii) – **Mechanically Formed**

These rocks are formed when eroded rock materials are transported by agents of erosion and deposited in layers either on land or in the sea

- Organically formed

These rocks are formed when remains of previously existing plants or animals organizations are accumulated over a period of time forming layers

- Chemically formed

.

These are formed when rocks are precipitated or when solutions of salt evaporate and particles accumulate in layers.

(b) - when the weight of the overlying rock layers creates pressure on the lower layers it leads to change in structure/ grain alignment of the rocks. This process is known as dynamic

- During volcanic eruptions, hot magma/ liquids may intrude into a sedimentary rock. The rock grains will re-crystallize due to heat to form new minerals. This process is known as thermal/ contact metamorphisms
- In the mountain building process, sedimentary rocks are compressed and due to this pressure heat is generated. This heat modifies the structure of the original rocks. This process is known as thermal – dynamic metamorphism

(c) (iv) Plutonic rocks

- Granite
- Syenithe
- Gabbro
- Diorite
- Poridatite

(v) Hypabyssal Rocks

- Dolorite
- Perplymite
- Porphyry
- Lamprophyre, biamphyre

(vi)

- Volcanic rocks

- Andesite - Pumice - Tephrite
- Trachite - Scoria - Ryolite
- Phonolite - Basalt - Obsidian

(d) (i)

- Textbooks/ pamphlets/ journals/ periodicals/ magazines/ newspapers/ hansouts
- Maps/Geological maps

.

- Photographs/ pictures/ video tapes/ slides/film
- Tape recorded information

(ii)

- Drawing of sketches
- Observation
- Collecting rock samples
- Making notes
- Taking photographs
- Asking/ answering questions
- Study geological map

(iii)

- Inability to identify rocks
- Inability to access the rocks
- Accidents slipping
- Difficulties in climbing descending steep rocks
- Hindrance by poor weather conditions
- Attacks by wild animals

8. (a)

- Fiord/ fjard/ fyord
- Dalmattan / Longitudinal
- Estuarine
- Ria

(b) (iii)

- Hard rocks carried by waves increase the erosive power of the waves as they hit against the coast
- Heavy pieces of rocks carried by waves hit against the cliffs thus weakening the wall making it susceptible to wave erosion

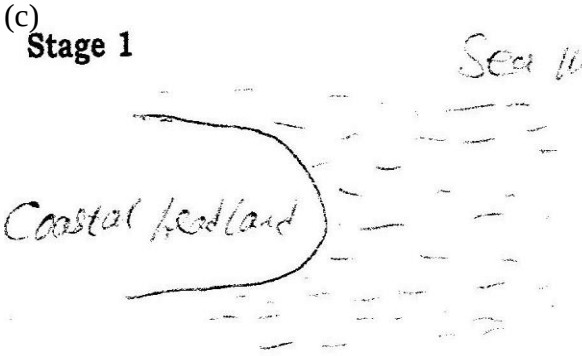
.

(iv)

- A coat made of soft rocks wears away easily when subjected to sea waves
- Well jointed / fractured/ unconsolidated rock enhances erosion by waves along the line of weakness
- Where rocks are soluble or made of limestone/ chalk they are easily eroded through solution process

(c)

Stage 1

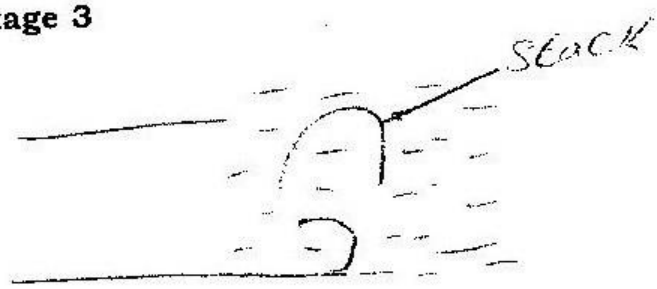


A coastal with a headland is eroded by waves on opposite

Stage 2

Elongation of the cave through the headland forms an arch

Stage 3



The roof of the arch collapses Part of the headland on the seawards end is isolated to form a stack

(d) (i)

- The water should be warm about 20 – 30^0C
- The water should be shallow to allow sunlight to penetrate/ depth up to 60m
- The water should be clear from silt / mud
- The water should be saline

.

- There should be plentiful supply of Plankton microscopic plant food
- The water should be well oxygenated

(ii)

- Coral features attract tourist who bring foreign exchange into the country
- Coral reefs provide breeding grounds for fish. This has promoted fishing industry at the coast.
- Coral reefs provided limestone which is used as raw material for cement making
- Coral rocks provided stones which are used in the building industry
- Coral stones are extracted and sold as ornaments/ for their aesthetic value

9. (a)

- Air/ gases
- Water/ moisture
- Organic matter minerals
- Inorganic matter/ minerals

(b)

(iii) Climate

- Rainfall provides water which make it possible for rocks to decay/ disintegrate to form soil
- Rainfall can affect the rate at which some soil forming processes can occur e.g leaching
- High temperature increase the rate of weathering/ accelerate the rate of bacterial activities which generates some of the organic matter in the soil
- Water, ice and winds, erode, transport and deposit soil particle in other area leading to the formation of new soil (e.g losses)

(iv) Topography

- Valley bottoms/ gentle slopes encourage the formation of deep and fertile soils due to deposition accumulation of materials

.

- Steep slopes encourages erosion of the top layer of soil that slowing down formation of soil / have a thin soils
- Flat plains/ flood plains are saturated with water therefore slows down forming process
- Slow influence arrangement/ sequence of soil
- Slopes scopes are more exposed to the sun/ rain which influence weathering of parents rock/ soil forms

(c) (i)

- Soils are sources of valuable minerals
- Soils are used as raw materials for pottery/ ceramics/ bricks
- Soils are used in building/ construction of industry
- Soils are used for agriculture
- Some soils are mixed with herbs for medicine purposes
- Used directly as cattle lick

(ii)

- Cutting down of trees/ deforestation exposes the soil to agents of erosion
- Continuous ploughing weakens the soil structure making it easy for agents of erosion to carry it away.
- Ploughing across the contour / up and down the slope creates channels which encourages easy removal of soil by running water/ agents of erosion
- Overstocking leads to tramping on the top soil by animals thereby loosening the particles and making them easy to carry away
- Overgrazing leads to removal of vegetation cover thus exposing soil to agents of erosion
- Continuous burning / cultivation without replenishing soil nutrients deprives the soil of the fertility which binds the particles together. This makes soils susceptible to erosion
- Road construction/ quarrying/ mining loosens the soils making them easily eroded.
- Monoculture / over cropping leads to soil exhaustion thus making the soil vulnerable to erosion

.

- Shifting cultivation/ bush fallowing may leave land unprotected against the agents resulting in wing erosion
- Cultivation on steep slopes/ river banks increases soil erosion processes

(a) Sheet erosion

- This occurs on gentle slopes which are bare
- When rainfalls, water spreads over a large area
- As water moves, it moves the top layer evenly over the area

(iv) Gully erosion

- It occurs on steep slopes
- Rain water cuts deeps grooves channels/ rills on the slopes
- The channels are widened and deepened to form gullies through which soils are carried away

.

GEOGRAPHY PAPER 312/2 K.C.S.E 2001
MARKING SCHEME
SECTION A

1. (a) (i) – Comparative bar graph / group/ multiple/ Composite

(ii) – Exports 3.8 + 4.9 4.9 = 13.6 k billion

- Imports 6.7 + 7.4 8.5 = 2.6 k billion
- Difference 22.6 – 13.6 = K billion

Calculation 1

13.6 – 22.6 = -9.0

Correct answer 1

(b)

- Kenya exports mainly agricultural raw materials which are a low value and imports manufactured goods which are of high value
- The agricultural goods exported from Kenya face stiff competition in the world and imposed quota systems in the world market which leads to reduce sales and less earnings
- Some of the goods exported are of low quality hence generate earnings
- Semi processed goods earns less

2. (a)

- Tea
- Coffee
- Pineapples
- Flowers
- Rice
- Wheat
- Barley

Any 2 x 1 =2

(b)

- Heavy rainfall between 1270 – 2500mm per year
- Well distributed rainfall – throughout the year/ rainfall throughout the year
- High temperatures between 28^0 – 30^0C
- Deep soils

.

- Well – drained soils
- Light sandy soils
- High humidity
- Low altitude

3. (a)
   - Incidences of water- borne diseases, bilharzias
   - Pest infestation which lowers production, quelea birds
   - Water weeds which compete with the rice for nutrients rhizomes
   - Silting in the canals reduces the amount of water
   - Low water levels in the rivers during the dry season

   (b)
   - Planting of trees/ afforestation/ deforestation
   - Planting to cover crops/ grass
   - Building dams/ reservoirs
   - Filling up gullies with brushwood
   - Introduction of modern methods of farming- Terracing/ contour ploughing/ use of fertilizer/ crop protection/ crop rotation/ strip cropping

4. (a)
   - Nakuru Trans Nzoia Laikipia Narok
   - Koibatek/ Baringo Uasin Gishu Marakwet

   (b)
   - In Kenya farming is done on small scale whereas in Australia it is on a large scale
   - In Australia Sheep are reared to provide mutton/ wool mainly for export while in Kenya it is mainly for local consumption
   - In Australia, Shearing is highly mechanized, while in Kenya it is mainly manual

   Any 3 fully compared points 2 (any 2 x 1(2mks) 2 = 4 marks)

5.

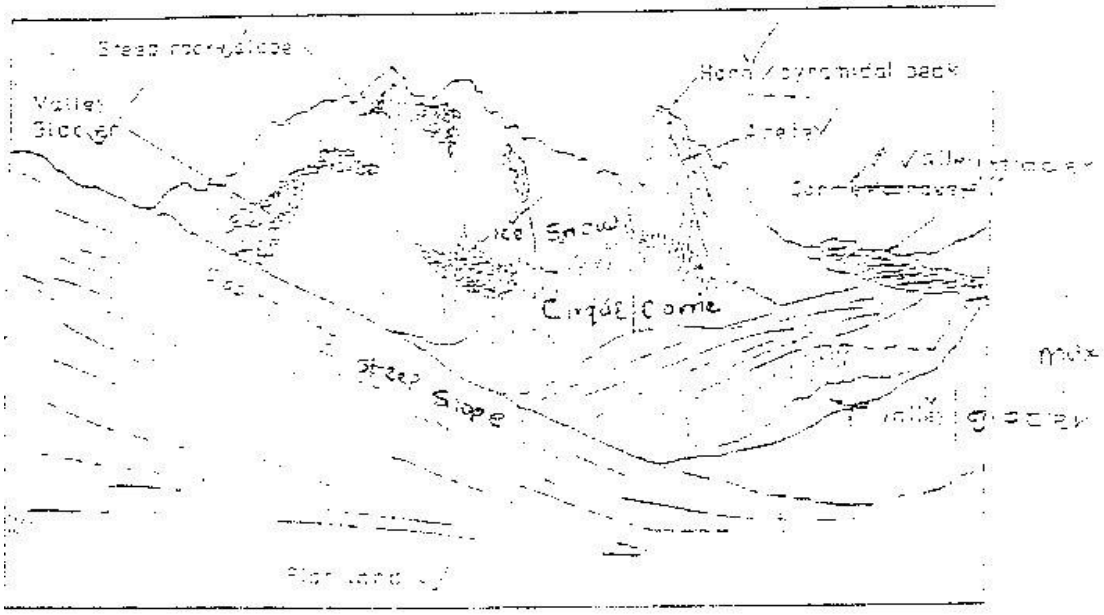
.

- It has created variation in prices of petroleum products
- It has led to mushrooming of many petroleum products dealers
- It has encouraged importation of refined petroleum products
- It has caused frequent price adjustments by oil dealers
- It has created widespread availability of petroleum products

SECTION B

6. (a) (i) – Ground photograph/ ground general view

(ii)



(iv)

- The area lacks sufficient vegetation that would provide food for wildlife/ the area lacks vegetation to provide shelter/ hiding habitation for wild animals
- The area is high above sea level where the atmospheric pressure may be too low to allow some living things to survive
- The high attitude/ presence of s now indicate low temperature unsuitable for survival of living things
- The area is a mountaintop which sometimes 3 experiences snowfall which would discourage wildlife
- The steep slope/ rugged terrain harbours movements of animals in the game parks.

(b)

.

- Encouraging individuals to set up game ranches
- Banning of trade in wildlife products
- Encouraging wildlife conservation education
- Employing anti- poaching unit/ Forest rangers in the game park
- Protecting the endangered species in orphanages/ sanctuaries/ arboretum / Natural reserves
- Promotion peaceful co- existence between wildlife and human beings
- Setting up game / forest reserves

(c)

- To make use of tourist facilities during the low tourist seasons
- In order for Kenyans to be exposed to move about their own country
- To facilitate interaction / cultural exchange among different communities and thus enhance national unity/ patriotism
- To expose people locally to produces articrafts
- To expose Kenyans to a wider variety of recreational facilities
- To create employment/ income to government or individuals

(d)

- Switzerland is located in central Europe making it easily accessible to tourist of European origin while Kenya is far from Europe
- Some of the tourist attractions in the two countries are similar, hence tourist prefer to visit those that are nearer home
- The peaceful atmosphere / political neutrality in Switzerland encourages tourists as opposed to Kenya where there are reports of insecurity which scare away tourists.
- Switzerland mounts more effective marketing promotions than Kenya
- The well- developed transport network in Switzerland provides easy access to tourists sites while in Kenya many roads are poorly maintained.
- In Switzerland tourists are charged fairly for services while in Kenya charges are relatively high
- In Switzerland there is more encouragement on package tours which lowers the rates charged for tourists facilities while Kenya this is not common

7. (a) P – Kampala

.

Q – Nakuru

R- Dar – el- Salaam

(b) (i)

- Its strategic position of the East coast of Africa was an ideal calling point for traders to and from the far East
- The island provides a good defensive site against external threats
- The flat land was ideal for construction of buildings
- The deep water on Mombasa and Kilindini channels provided a natural harbour for traders
- Rivers Mwachi / Kombeni provided fresh water for domestic use
- The coral limestone found in the area was used as building stones for houses

(ii)

- There is an acute shortage of water as the population has outgrown the available supply
- The growing population has outstripped/ educational facilities/ health/ sanitation creating pressure and scarcity
- Inadequate housing facilities has led to growth of slums/ informal structures for dwelling
- The narrow streets causes delays/ congestion on roads
- The narrow streets cause delays/ congestion on roads
- There is limited space for expansion on the island which has resulted into expansion of the town towards the mainland.
- Due to high rate of unemployment, crime and social evils are common
- Industrial / domestic wastes has caused pollution

(c) (v) Mombasa relies on road, railway, air and pipeline while Rotterdam has a river canals in addition

(vi) Rotterdam uses advanced technology in providing services at the port while Mombasa port has had very limited expansion in technology

(vii) Rotterdam has expanded to a new outer port known as Euro port while Mombasa port has had very limited expansion

(viii) Mombasa experiences tropic climate/ modified equatorial while Rotterdam experiences cool temperature climate/ cool temperature.

.

Western margin climate

8. (a) (i) Lake Superior
(ii) Niagara falls
(iii) Quebec port

(b)

- It provides cheap mean of transport for both imports and exports, thus encouraging internal/ international trade
- It has led to growth of ports and towns along its course. These have become focal points for various economic activities
- Due to accessibility to raw materials, there has been extensive industrial development in the area.
- The dams found along the route provide hydroelectric power for domestic and industrial use.
- The sea way is a tourists attraction which generates income in the region
- The sea way has created employment opportunities in the transport industry raising the standards of living of the people in the area
- Tarrifs charged earn the countries income

(c)

- African countries have railways of different gauges, which make it difficult for them to join
- The countries were colonized by different European powers who constructed railways to transport raw materials from the interior to the ports within their own colonies
- Political differences/ differences/ different political ideologies/ political instability among African countries hinder efforts to construct railway line to link them
- African countries produce similar goods hence there is limited trade between them. (this doeas not warrant construction of railway lines)
- Railways are expensive to construct/ most African countries are poor/ inadequate capital and hence expensive to construct/ expand
- Parts of Africa are unproductive so it would be uneconomical to construct railway lines

.

- Variation in terrain has hindered the development of various lines

Any 4 x 2 = 8 mks

(d) (i)

- Liberalization of airways/ licensing of more private radio/ T.V stations
- Introduction of E- mail internet/ fax (telefax)
- Introduction of mobile phones/ cell phones/ pagers
- Liberalization of the press
- Expansion of telephone facilities
- Liberalization of postal services

Any 2 x 1 = 2 mks)

(ii)

- Development of other and more efficient means of communication e.g. electronic mail has led to reduced use of telephones
- High cost of installation and maintenance of telephone lines limits the number of subscribers
- Vandalism of telephone equipment renders most telephone services would be unavailable to users
- Mismanagement in the organization that provides telephone services has made it difficult to expand the services to many areas of the country
- Poor reception/ disruption of natural hazards/ overlapping of telephone lines discourages the use of the facility.
- Lack of modernization of telephones in some areas causes delay and discourages the use of telephones

Any 3 x 2 = 6 mks)

9. (a) (i) Land pollution/ soil. Ground

- Noise pollution/ sound
- Thermal pollution
- Radiation

Any 2 x 1 = 2 mks)

(ii)

.

- Discharge of industrial waste/ oil spillage/ radioactive waste into water bodies
- Disposal of domestic waste into water bodies
- Discharge of agriculture chemicals into rivers/ lakes by rain water
- Discharge of raw sewage into water bodies
- Abuse of water bodies by human beings
- Natural causes e.g. soil erosion/ terrestrial gas

Any 3 x 1 = 3 mks

(iii)

- Gases emitted from some factories contain substances which corrode roofs of houses and mental structures
- Some gases from factories contain substances which dissolve in water to form acid which make plants maim or kill animals
- Inhalation for smoke and soot particles / bad smell lead to discomfort / irritation of the respiratory system / discolouring of vegetable / building.
- Gases emitted from factories may contain poisonous substance which can lead to poor health / death when inhaled /plant leaves turn yellow.
- Gases / excess carbon dioxide increases the temperature affecting the climate of the affected areas / depletion of O – Zone layer.
- Smoke / dust / smog reduces visibility which way lead to motor accidents.
- Dust particles that settles on leaves inhibits photosynthesis

Any 3 x 2 = 6 mks.

b(i)

- Most of the land is low lying which causes the rain water of spread over wide area.
- The adjacent highlands receive torrential rainfall which releases large volumes of water resulting to rivers overflowing their banks.
- Silt has filled the river beds making them shallow thus spilling their water over banks
- The rivers are at their old stage, thus they have wide flood plains which allows water to spread over large areas.
- The area has black cotton soil which is non- porous and when soaks up allow water to flow and spread on the surface.

.

- The heavy rainfall received in the area id discharged into lake Victoria making its level to rise thus flooding the adjacent lowlands.

(Any 3 x 6= 18 mks)

ii)

- Dams have been constructed across the rivers to check their velocity thus reducing the incident of flooding.

Several dykes have been constructed / artificial levees to restrict the rivers within their channels/ diversion channels have been constructed in the flood plain and water used for irrigation thus reducing the effect of the excess water.

(Any 2 x 2 = 4mks)

c)

- Strong winds destroy trees
- Winds blow off roofs of houses
- Winds cause strong sea storms and lead to boats capsizing / communication lines are destroyed / destruction of transport line.
- Winds cause soil erosion
- Winds spread air – borne diseases
- Winds spread bush fires

(any 4 x1 = 4mks)

GEOGRAPHY PAPER 312/1 K.C.S.E 2002
MARKING SCHEME

1. a) P - Horst block
   Q - Rift valley
   R - Fault scarp / escarpment

b)

- In a normal fault part of the fault is exposed to form an escarpment when in a reverse fault the plane the plane is not exposed.
- A normal fault is cause by tensional forces while a reverse fault occurs due to Compressional forces.
- In a normal fault, the up throw move away from down throw while in a reverse fault the up throw moves over down throw.

2.a) i) -Acute delta.

ii) E -Lagoon
F -Distributary's
G -Spit / sand pit. b)

.

- Large quantities of silt / sediments are carried / deposited at the river mouth.
- Low velocity of the river at the mouth / gentle slope at the river mouth.
- Weak sea eaves / weak tidal currents at the coast / lin the sea / at the river mouth.
- A shallow continent / shelf / shore/around the river mouth
- High rate of deposition than the rate of removal of silt at the river mouth.

3 a)

- It is the process through which marginal lands are degraded. Climate variations and human activities / encroachment of arid conditions into formerly productive areas.
- It leads to shortage of water / destruction of water catchment areas.
- It leads to drying up / of destruction of vegetation.
- It leads to drying up of soils / development of infertile soils.
- It causes out migration of population.

4.a)

i) -1.9^{o}C

ii) – 193 mm.

- Altitude.
- Aspect
- Latitude
- Distance from the sea
- Ocean currents
- Cloud cover / forest
- Winds

5 a) The solar system is the sun and the planets orbiting around it.

b) i) Solar eclipse / eclipse of the sun.

ii) L – The moon

M-Umbra / moon shadow / lunar shadow.

.

SECTION B.

6.i) 139ºC + 1oC (138º – 140º)

ii) - 7.2km + or 0.1 (7.1 – 7.

iii) - A lake. R1

-A plantation L1 -

River Luanda P1

b) i)

- The highest area is Nandi escarpment/ 1872m above the sea level.
- T he lowest areas is to the south West / which is about 1140m above the sea level.
- The east is a plain / kano plain / plateau.
- The North the Nandi escarpment.
- The landscape on the northern part is dissected by rivers.
- There are numerous river valley these have steep of the highlands are broad in the lowland.

ii)

- The sep slopes / escarpment have been avoided because they are unsuitable for the construction of houses / for farming.
- There are a few settlements on the hilly areas because the slopes are gentler.
- The plains are densely settled as the land is flat / gently sloping.
- The basins are avoided as the land is water logged / flooded / swammpy.

c)

Economic Activities	**Evidence**
Quarrying	-Quarry
Processing	-Markets / trading centres/sisal factory/cotton ginnery/ flourmills.
Transportation	-Railways / roads/ main roads/ foot paths.

d) i)

- The river has many meanders / beds.
- The river has tributaries / confluence
- The river disappears into a swamp. • The river has a wide flood plain
- The river is at its old stage.

ii)

- It enables students to relate what they have learnt in classroom.
- Students are able to count the number of tributaries.

.

- Students are able to gauge the impact of the river on the areas.
- They are able to find out for themselves the uses of the river.
- It allows students to use their observation skills to make conclusions
- It enables students ton acquire appropriate attitudes towards the environment.\
- It breaks the classroom monotony for the students and the teachers.

7.a) i) X – Coastal plain / lowlands

Y – Kenya highlands / Central highlands

Z- The lake basin / lake plateau

ii) S – Fishing

T- Mining

iii)

- The underlying molten rock escaped through a vent to the surface / volcanic eruption occurred.
- There were violent eruptions, which ejected acidic cooled and solidified.
- The lava piled in layers around the vent.
- The lava did not flow very far from the vent
- Over the years, eruption ceased and the volcano became extinct.
- Erosion set is exposing the plug and producing the jugged peak of the mountain.

iv)

- Due to the conical shape of the mountain, the rivers form radial drainage patterns.
- At the lower slopes the rovers form dendritic patterns.
- The mountain is a catchment area / source for many rivers.
- The mountain has glacial lakes near its top.
- The mountain is very high (5199m above the sea level) allowing the formation of snow / ice leading to constant supply of water for rivers. b)
- The plateau rises from 200m to 1500m above the sea level.
- Much of the plateau has been eroded producing residual hills/ inselbergs.
- The hills are scattered over the region.
- On the eastern part of the region is the Yatta plateau, which resulted from basic lava flows.

.

- Some parts in the north are plains.
- The Chalbi desert has sand dunes.
- There are some young volcanic upland such as mt. Marsabit.
- To the east, the region has a depression, which is occupied by the Lorian Swamp.

c) i)

- Reading from textbooks.
- Collection soil samples
- Observation
- Interviewing resource persons.
- Digging the soils
- Photographing

ii)

- Its colour
- Its texture
- Its porosity
- Its nutrient content / organic matter
- Its mineral composition
- Its acidity / PH
- Moisture content

8. a)

- H – Pampas
- J – Steppes
- K – Downs

b)

- The vegetation is tropical rain forest / equatorial forest.
- The forest consists of mixed variety of tree species.
- The trees shed their leaves at different time of the year / evergreen.
- The trees have broad leaves / deep trapped leaves.
- The tree takes long to mature

.

- The forest has little or no undergrowth
- The forest has numerous liana /climbing plants / epiphytes
- Some of the trees have buttress roots
- The forest has crowns that form canopies three distinct layers.

c) i)

- Some plants have thick / fleshy / succulent leaves / to enable them store water.
- Some have long roots to tap the ground water
- Some have no leaves/ have thin / spiky/ waxy / needle – like leaves / to reduce transpiration.
- Some plants have thick / hard barks to reduce transpiration.
- Some plants have shiny surfaces to reflect light.

d) i)

- Measure distances / climate distance / heights
- Collect samples of plants
- Draw sketches / transects.
- Record / take notes
- Take photographs of plants / area
- Count plants.

ii)

- By their appearance
- Their colour
- By their leaves size
- By their area
- By the nature of their bark
- By the texture of their leaves
- By the system of their leaves
- By their fruits / flowers.

9.a) U – mohorovicic discontinuity / moho discontinuity
V – The mantle / asthenosphere

b) i) The crust

- It is made up of solid rocks.
- It is divided into two layers / the sial / continental crust and sima / oceanic crust.

.

- The sial is rich in silica and aluminium.
- The sima is rich in silica and magnesium
- The sima is made up of dense rocks /2.8 – 3.0 gm/cc
- The sial is made up of lighter rocks / 2.7 / it floats on sima • The dial is made up of sedimentary / metamorphic rocks
- The sial rocks are made of rigid / brittle rocks.

ii) The core.

- It's composed of two parts.
- The main minerals of the outer core are iron and nickel
- The main mineral of the inner core is iron
- The inner core has higher density than outer core/ 16/17gm/cc
- The outer core is melted

c) i)

- They are sudden earth movements which cause vibrations / rambling within the crust.

ii)

- Primary / push waves/ p – waves
- Secondary / shear waves / S – waves
- Longitudinal waves? L – waves iii)
- Earthquakes cause lateral vertical displacement of rocks
- They cause raising and lowering / uplifting and warping of parts of the sea ploor.
- They cause raising / lowering of land
- They cause landslides / slumps
- They lead to faulting of the crust
- They lead to volcanic eruptions.

d) i)

- Written material / books/ magazines / newspapers
- Maps
- Photographs / video cassettes / films
- Resource persons

.

- Electronic media / radio /TV

ii)

- Inaccessibility of the area due to massive destruction / restriction.
- Lack of informers because people may have been evacuated.
- The rubble may obscure the evidence of the amount of damage.

GEOGRAPHY PAPER 311 / 2 K.C.S.E 2002 MARKING SCHEME.

1.

- The area receives low / unreliable rainfall / 250 – 500 / dry.
- Most parts have thin / undeveloped soils / sandy soils unsuitable for agriculture.
- The area has scanty vegetation that cannot support livestock
- Some areas are insecure and therefore avoided
- Some area have a rugged terrain unsuitable for settlement
- There is inadequate supply of surface water.
- The area experience high temperatures unsuitable for settlement .

2. a)

- To ensure self sufficiency in foodstuffs.
- To ensure that there are sufficient food reserves
- To ensure that every citizen has access to sufficient foodstuffs.
- To ensure that the available food is of balanced nutritional value
- To give government control over exports / import of food
- To allow free movement of foodstuffs within the country.

b)

- Drought / floods have caused food shortages.
- Food storage facilities are inadequate.
- Farmers have little information on the expected weather trend to enable them plan their calendar.
- Inadequate monitoring of food supplies makes it difficult to identify needy areas
- Some citizens have inadequate education on the nutritional value of foodstuffs

.

- Inadequate use of the required farm inputs leads to low output of foodstuffs which affects the food reserve.
- Laxity / corruption in control of importation/ exportation of foodstuffs.

3. a)
   - The over fished areas are being restocked.
   - There are laws enacted against indiscriminate fishing / types of nests/ seasons for fishing areas free for fishing.
   - Special hatcheries have been set up for artificial fertilization of eggs pisciculture.
   - Disposal of effluent into fisheries is prohibited / control of water pollution through legislation.
   - Research is carried out of expand and improve fisheries
   - Institutions have been set up to train personnel to manage fisheries. b)
   - It has an extensive continental shelf.
   - Its water are rich in plankton
   - It has a long forded coastline which provides sheltered waters ideal of fishing / breeding ground for fish.
   - Cold climate / rugged terrain drove people to fishing
   - Norway has a long tradition in sailing and fishing
   - Its cool climate makes preservation of fish easy / it has advanced technology in fish preservation / fishing advance techniques.

4. a)

P	Jinja
Q	Bukoba
R	Mwanza

   b)
   - They guard against destruction of goods • They make loading and offloading of goods easy
   - They are even in shape hence occupy less space.
   - They guard against theft of goods.
   - It saves time when loading and offloading is easy.

.

5 a)

- The farmers are self – employed / it created employment.
- The farmers generate income by selling the pigs and pig products.
- They use the pig manure in their farms • They use pig meat to diversify their diets.

b)

- Expensive pig feeds
- Poor marketing strategies / lack of co –op / organizations to sell their products
- Competition from other types of meat which are relatively cheaper
- Inadequate capital to expand pig farming
- Diseases e.g. African swine fever, foot and mouth, pneumonia.

6 i)

Forest
Workers/people
Logs/heap of logs
Cleared area
Stumps
Cleared area
Poles

- Litter
- Sky/clouds/horizon

ii)

- The trees have straight sterns
- The forest has tall trees
- The trees are close to each other/thick forest
- The trees are almost the same height.
- They are of the same species.
- There are some scrubs/undergrowth
- Some trees are conical shaped
- Trees are thin

b)(i)

.

- Agro forestry is a land use system, which enables the production of trees, crops and livestock on a given unit of land either in spartial arrangement or/over time to maximize productivity and sustainability of the land.

(ii)

- To ensure continuous supply of wood fuel/timber/herbal/medicine/raw material for paper making.
- To protect the soil from erosion.
- To protect the water catchment areas/create microclimates/maintain hydrological cycle.
- To create scenic beauty.
- To expand the habitat for wildlife/conservation of wildlife.
- To create employment opportunities.
- To reduce importation of forest products/save foreign exchange.

c)(i) Trees harvesting.

- In Canada, harvesting is done through clear cutting while in Kenya it is selective logging.
- In Canada logging is done in winter while in Kenya cutting takes place throughout the year.
- In both countries, commercial logging is mechanized. N.B. Comparisons must be complete.

(ii) Transportation of logs.

- In Canada, logs are transported using melt water/rivers while in Kenya transportation is by road.

d)

- Accidental fires which consume large tracts of the forests reduce the area under the forests.
- The cold climate leads to trees taking too long to mature which delays harvesting time.
- Rugged landscape especially in the mountainous areas hinder smooth exploitation of the forests.
- Northern parts are inaccessible in winter due to very cold climate conditions.

.

- Overexploitation in some areas have created a shortage in some of the true species while taking a long time to mature.

7 a) -On the map shade the main oil palm growing area
-mark and name Lagos

b)

High temperatures throughout the year/ 23^0C- 30^0
Plenty of sunshine
High rainfall evenly distributed throughout the year / 1500-2100mm
Deep fertile well drained soils
Low altitude of up to 100m above sea level
High humidity 80-90%

c) (i)

- Oil palm is harvested three years after planting
- The ripe fruit is cut using curved knives /pangas / chisels/ hooks.
- Cutting goes on throughout the year.
- Fruits are carried in baskets or on poles to lorries for transportation to the factory
- Fruits are collected and transported quickly to the processing factory
- At the factory the fruits are weighed
- They are offloaded into tube like cages or trucks
- Fruits are put in digester for further cooking to soften them up
- The pulp is separated from the kernel

(ii)

- The leaves are used for roofing
- The shells /fibers are used for fuel.
- The leaves are used for making baskets/ hats/ mats/ brooms
- The stems are used as building poles
- The sap from the stem is used for making wine / alcoholic drinks
- Crushed nuts grown for animal feeds/fertilizers

(iii)

- Maize /corn
- Sunflower

.

- Groundnut/peanuts
- Cashew nuts
- Coconut
- Sim sim
- Cotton
- Soya beans

8. a) (i)
   - Petroleum /oil
   - Natural gas
   - Uranium
   - Coal/peat

   (ii)
   - Presence of large volume of water from a river /Lake / large catchments area to provide water to drive the turbines
   - Regular / constant supply of water to ensure continuous generation of power
   - Hard basement rock to provide a firm foundation for the construction of a dam
   - Provide space for reservoir
   - Non-porous rock to prevent seepage

   b)

   It filters silt to save the other dams which are down stream

   It provides a fishing ground for the local communities It provides water for domestic use.

   It is a tourist attraction/reaction

   The dam provides a link role river Tana.

   Water for irrigation

   Provides employment Non-exhaustible/ renewable.

   Lean to use / non-pollutant

   Relatively heap

   Easy to use

   Adjustable to any fraction of energy using transformers

Convenient to use in a variety of ways. c)

.

- It would encourage setting up of industries in the rural areas thus stimulating decentralization of industries.
- It would reduce the cutting down of trees and electricity would be available for domestic use
- It would attract/improve social amenities in rural areas reducing the need for people to move to urban areas.
- Most people would invest in the rural areas, which would lead to higher standards of living.
- It would encourage development of horticultural farming / to have ideal storage of perishable of products.

d)

- It leads to closure of some industries
- It led to unemployment /redundancy/early retirement of workers.
- It led to an increase in the cost of electricity / purchase and use of generators
- It led to power rationing. Which slowed down rate of production

9. (i) name the minerals mined in the areas marked S, T and V.

S - Oil Petroleum

T - Bauxite/Gold

V -Diamond

(ii) State two formations in which mineral ores occur.

Some minerals occur as evaporates

Other occur as evaporates

Some mineral occur as alluvial deposits/placer deposits

Some minerals are found in seams /beds

b) Explain four problems, which Zambia experiences in the exportation of copper.

- Zambia is landlocked/has no coastline hence copper has to pass through other countries
- The distance from Zambia to coast is long which makes transportation of copper expensive
- Political instability in the neighboring countries makes it insecure to transport the copper through them to the coast.

.

- Congestion at the seal ports cause delays in loading and off loading copper
- Loss of copper through theft while on transit deprives Zambia of part of expected revenue.
- Copper is bulky thus it can only be transported by train, which is slow.

c) Explain three ways in which coal contributes to the economy of Zimbabwe .

Coal provides energy that is used for industrial / domestic purposes

Some coal is exported to earn foreign exchange

Coal mining created employment, which provide a means of livelihood

Coal mining has led to the extension of railway line to serve the mining areas

Col is used as fuel of heating /Locomotives that save foreign exchange that would have been used to import other fuels

Coal mining has led to the extension of railway line to serve the mining areas.

Cols used as fuel for heating/ Locomotives that save foreign exchange that would have been used to import other fuels

Coal mining has led to growth of urban centers creating growth poles in the country.

Coal led to the diversification of economy reducing reliance on agriculture.

d) Describe three negative effects of open cast mining on the environment

- The land is left with gaping quarries, which are ugly, interfere with the natural beauty of the landscape.
- The heap of rock waste hinder any of land use/creates a landscape that is expensive to rehabilitate/barren landscape.
- The dust produced during the mining pollutes the atmosphere/is a health hazard
- Open cast mining causes shortage of land it hinders settlement/leads to displacement/hinders agriculture
- Large scale blasting of rocks leads to instability of the basement rocks
- Water collects in the hallows left by open cast mines creating ponds which becomes habitants for disease causing organisms

.

- It interferes with the natural vegetation, which is cleared before extraction of the mineral begins to take time to generate.

GEOGRAPHY PAPER 312/1 K.C.S.E, 2003 MARKING SCHEME.

1. a)
   - The amount of stream discharge
   - The amount of load
   - The composition/size of sediments/loads
   - The slope / gradient of the landscape
   - The rock type

   b) (i) it is the renewed erosive activity of a river

   (ii)
   - River terraces
   - Incised meanders
   - Knick point
   - Valley within a valley
   - Water falls/rapids

2 a)
   - An area of limestone
   - Thick layers of calcium carbonate rocks
   - Moderate to abundant rainfall
   - A low water table

   b)
   - The areas are rocky
   - They have thin soils
   - They have poor vegetation
   - There is inadequate water supply

3 a)

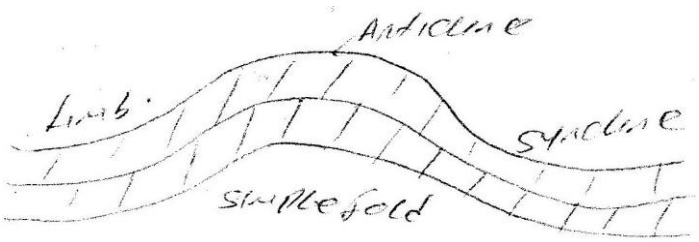
.

- Nature of materials
- Extent of saturation /amount of rainfall
- The angle of slope/gradient of the land
- Human activities/ mining /building
- Occurrence of earthquakes/volcanic eruptions

b) (i)

- Rock fall
- P- cliff face/steep slope
- Q-Talus/ talus creep/scree

4 a) (i)



b) Atlas Cape Ranges

5. a) (i) Granite - Gneiss

(ii) Clay - slate

- The costal plain is a lowland, which has facilitated deposition of sediments
- The shallow continental shelf has conclusive environment for he formation of coral rocks

6 a) (i) -2000m (2000-2019m)

(ii)

- Contours
- Trigonometrically points
- Depression symbol (lake Nkunga)

(iii) -248^0 + /- 1”

b)

- The high density of settlement shows that there is market/high demand for goods
- The high density of road network provides means of transportation for goods

.

- The variety of economy activities show that the area is productive with encourages trade.

d)

- J - A plantation
- K - A lake/sacred lake
- L - A river/river munyi

(i) 7.2 + /- 0.1 km

(ii) Scrub scattered trees (iii)

Use of questionnaires
Interviewing
Reading from secondary sources
Taking measurements
Taking photographs
Sketching

(iv)

- Report writing
- Class discussions
- Displaying collected specimen
- Asking/answering questions
- Reading more about the topic
- Analyzing photographs/tape recorded work
- Rejecting and accepting hypothesis

7 a) i)

It is mass of moving ice

ii) Valley glaciers are formed on highlands above the snow line while ice sheets are found in lowlands in the high latitude regions/valley glaciers are confined in valleys while ice sheets cover extensive landscapes

b) i)

- D- Truncated spur
- E- ribbon lake
- F- glacial trough/U-shaped valley

ii)

.

- Ice accumulates in several cracks/hollows on mountain sides
- Ice exerts pressure on the cracks /hollows
- Plucking action of ice enlarges the hollow allowing more ice to collect in them
- Freeze-thaw action leads to expansion of cracks/hollows making them large basins
- Moving ice plucks off loose rock materials from the basin thus enlarging them further
- Nivation eats into the back wall of basins making them recede into the mountain side.
- Steep sided knife edged ridges are formed separating the basins
- Three or more of these ridges/arêtes converge at the mountain top forming a jagged peak known as a pyramidal peak/horn.

c)

- the warm glaciated valleys are suitable for livestock farming/cultivation
- Glacial upland areas form magnificent features that encourages secretion and tourism
- Glaciated mountains encourage the growth of forests hence lumbering is practiced
- Waterfalls formed in glaciated uplands provide suitable sites for hydro-electric power production
- Corrie lakes/tarns offers suitable areas for trout fishing
- U-shaped valleys form natural route ways
- Flood coastlines form deep well sheltered natural harbours/good fishing grounds.

d) (i)

- Climbing the mountain is difficult due to the rugged terrain
- The features are found far from schools/settlements
- Time may be inadequate
- The study may be hindered by poor weather conditions/rain/low temperatures
- The thick forest/vegetation cover may be difficult to cross/may have dangerous wild animals
- It would be expensive to prepare for the kind of field study
- By dividing it into parts
- By observing and identifying the features in each part of the photograph
- By drawing sketches of the feature observed

.

- By labeling the features observed

8 a) i) X - 31- 28= 3^0C

Y - 12-12=9^C

(ii)

- The station received low rainfall
- Rain falls throughout the year
- The wettest month is June/the driest moth is February
- Summers are relatively dry while winters are relatively wet
- Most rain falls between May and August
- The station experiences warm summers and cool winters
- Temperature's are moderate throughout the year

c) i)

- water surface/sea is heated intensely by conduction
- Maximum heating occurs in the afternoon
- Moisture laden air rises in conventional currents
- As the warm air rises, it is cooled
- The moisture laden air condenses at high altitudes
- The condensed water vapour forms clouds which develop into cumulonimbus clouds with time
- The clouds give rise to heavy/torrential rain accompanied by thunder an lighting and sometimes hail stones

ii) The torrential rains cause floods which displace people

- The hailstones destroy crops
- The strong winds blow off roots of houses/ uproot trees
- Lightning strikes causing deaths of people and animals

9. a) i)

- Deflation
- Abrasion

.

- Attrition ii)

- Suspension

The fine dust particles are lifted and suspended in the air

Eventually they are blown away by wind currents

-Saltation

-Larger fragments/sand particles are lifted from the ground by eddy action

-They are moved in a series of hop(s)/ along with wind currents

- Surface Creep

The heavy materials/small stones. Pebbles are dragged along the ground by wind currents

b) (i)

- A pre-existing depression formed through faulting or otherwise is exposed to wind erosion
- Wind eddies removes unconsolidated materials through deflation
- As deflation continues, the depression is deepened and enlarged
- The process of deflation is aided by weathering
- With continued deflation, the level of the water table is reached.
- After oozes out of the ground and collects into the depression to form an oasis

(ii) How zeugens are formed

- Zeugens are formed in desert area where alternating horizontal layers of hard and soft rocks occur
- The top layer of hard rock is jointed has cracks
- Weathering opens up the joints deepening them to reach the soft layer of rocks
- Abrasion continues, furrows are formed and gradually widened.
- The hard/resistant rock forms ridges separating the furrows
- This process creates a ridge-furrow landscape.

C(i)

- Reading from relevant written materials
- Assembling relevant tools/ equipment / materials for the study.

.

- Formulating hypothesis / objectives
- Grouping / appointing group leaders
- Planning a schedule of activities
- Carrying out reconnaissance
- Studying / drawing a route map
- Identifying methods of data collection.

ii)

- Sparse vegetation / large patches of bare soil
- Sparse settlements
- Presence of drought resistant crops
- Stunted trees / tuffs of grass
- Dust storms / sand storms
- Evidence of wind erosion. iii)
- Planting of trees
- Controlling overgrazing
- Avoiding bush fires
- Controlling tree cutting
- Practicing appropriate methods of cultivation / planting cover crop / irrigation / mulching / terracing strip cropping / contour farming.

GEOGRAPHY PAPER 312 / 2 K.C.S.E 2003 MARKING SCHEME.

1. a)

It is the process whereby an increasing proportion of the total population in a country settles/concentrates in town / the process through which towns or cities grow in numbers and size / a process by which a population is transformed from rural based agricultural lifestyles to urban based non agricultural lifestyle.

b)

	New York	**Nairobi**
•	It is a sea port	it is an inland port

.

• It is a state capital	It is a national capital
• It is an international commercial financial centre	It is a national commercial centre.

2 a)

- Through irrigation
- Through controlling pests
- By introducing drought resistant crops
- By using fertilizer/ manure
- By a forestation

b)

- Floods were controlled
- Pests waterborne diseases were controlled
- There was an increase in the land for agriculture/ more land was made available for agriculture.
- Better farming methods were introduced
- There was increase in the employment opportunities.

3. a)

- Temperature ranging from $14^{o}C$ – $26^{o}C$
- High rainfall – 1000mm – 2030 mm per year.
- Well – distributed rainfall throughout the year.
- Gently sloping landscape – 1500 – 2300 M above sea level. • Deep well drained soils
- Volcanic soils.

b)

- The crop is attacked by pests and diseases i.e. pests – lady bird/Thrips/ aphids diseases – CBD, Leaf rust / root rot.
- Fluctuation of coffee prices in the world market.
- Poor infrastructure
- Mismanagement of coffee co-operatives
- Inadequate rainfall

.

- Inaccessibility to credit / inadequate capital.
- Expensive prices of inputs e.g. fertilizer, pesticides
- Delayed payments
- Poor marketing strategies
- Low payments.

4 a)

- To ensure that there is supply for present and future generations
- To maintain hydrological balance.

b)

- By reducing surface runoff which ensures that rainwater seeps slowly into the ground.

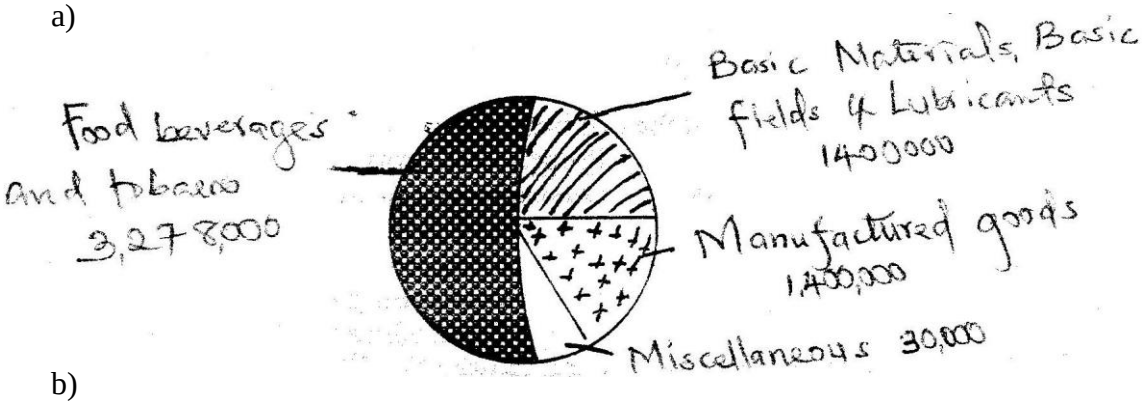
5 a)

- To preserve the natural beauty
- To conserve wildlife plants and animals
- To promote tourism / provide for recreation
- Provide an environment for education and research

b)

- Sandy beaches / coral reefs
- Sunny / warm climate / warm conditions
- Historical sites
- Traditional culture of the people / i.e dancers / shrines / Kaya forest/ craft.
- Water sports.

6 a)



b)

- Encouraging development of Jua kali industries which do not require

.

importation of heavy machinery // so that Kenya is also able to export.

- Restricting the importation of luxury items through taxation
- Establishing/ providing import substitution industries to cut down on importation of some commodities.
- Developing alternative sources of energy in order to reduce importation of fuels / petroleum.
- Encouraging the production of high quality manufactured goods for export in order to earn higher income // high prices // production of high quality agricultural products.
- Diversifying the agricultural export base to enable the country to have a variety of exports.
- Opening new markets to avoid dependence on the traditional partners.
- Popularizing trade to increase earnings from the invisible trade.

c)

- The imported industrial inputs have led to the growth of manufacturing industries in the country.
- Demand for Kenya's exports have led to the expansion of the industries that produce those goods.
- Transport and communication network in Kenya has been improved to facilitate the movement of trade goods // modernization of the facilities for handling goods at the port of Mombassa.
- Taxation of commodities and services rendered has generated revenue for the country.
- Employment opportunities have been created in the manufacturing service industries that handle imports and exports.
- Trade has enhanced cooperation between Kenya and the trading partners.
- Trade encourages specialization which leads to production of high quality goods in some industries in Kenya, thus enabling the country to earn higher income.
- Kenya is able to import what it needs from other countries to satisfy its people.
- Kenya gets a ready market for its surplus goods
- Kenya has foreign exchange which enables it to import goods from other countries/ credit foreign exchange.

7 a) i)

.

- National census head count
- Sample survey
- Vital statistics / registration of birth / death / marriages / migration.

ii)

- The size of the population
- The different age cohorts(age groups)
- The proposition of males to females.
- The composition by sex.
- The proportion of the youthful/working / ageing/ dependency ratio. b)
- The population of Kenya has a large number of young people below 20 years of age while Sweden has an ageing population.
- Kenyans population has a lower life expectancy while Sweden has a lower life expectancy.
- Population birth rate in Kenya is high while it is low in Sweden
- The fertility rate in Kenya is high while in Sweden
- The population growth rate is high in Kenya and low/negative in Sweden.
- A high percentage of the population in Kenya live in rural areas while in Sweden most people live urban areas (the difference must be complete) c)
- Pressure on land makes people buy/look for land elsewhere and move to settle there.
- People move from the rural areas makes people to move to safer places
- Setting up of government development projects cause displacement of people who are settled elsewhere such projects cause displacement of people who are settled elsewhere such projects attract settlements in those areas (settlement schemes)
- Natural hazards force people to migrate ato other areas for safety
- Pastoral communities migrate from one rural areas to another in search of pasture / water for their livestock
- Change in land tenure system/ and disputes cause people to move and settle elsewhere.

d)

.

- The rate of population growth is higher than the rate at which job opportunities are generated leading to high unemployment.
- The high demand for social amenities caused by the high population growth rate leads to congestion in schools /hospitals/ housing/transport facilities.
- The large number of youthful population create a high dependency ratio which causes slow economic growth.
- The high demand for food caused by the high population growth rate has lead to food shortage
- The high demand for agricultural land cause land fragmentation. //
- The large number of poor people /unemployment lead to temptation to commit crime/high crime rate

8. a)
   - Tobacco processing
   - Soap manufacturing
   - Foot wear making
   - Vegetable chemical products making/ pyrethrum processing
   - Textile manufacturing
   - Saw milling/pulp/paper making
   - Leather tanning

   b) (i)

   (ii)

- Thika
- Nairobi
- Mombasa

.

c) (i)

- Large-scale importation of second hand clothes has reduced demand for locally produced textile products/second hand clothes are cheaper than the locally produced new clothes.
- There has been a decline in the production of cotton which has led to limited supply of raw materials for the textile industry.
- Mismanagement of textile factories has led to closure of such operations textiles from other countries instead of selling produced ones.
- Belief that imported garments superior to locally produced ones has reduced demand from local garments
- Decline in the economy has discouraged investors who would set up textile industries in Kenya.

(ii) **Water pollution**

Treating the industrial waste to reduce the negative impact particularly industrial effluents/enforcing environmental laws on the use of improved technology for industrial efficiency

Recycling wastes in order to reduce the industrial waste turnover. **Rural urban migration**

- Improved agriculture to create employment in rural areas.
- Encourage growth of Jua kali industries in rural areas to promote self employment
- Decentralize industries so as to control the number of people moving to industrial centers in search of employment.

d)

- Availability of adequate financial resources which have helped in the setting up and expansion of the industry.
- Presence of large population, which provide a large domestic market for electronic goods/availability of large external markets.
- Government policy on industrialization has led to rapid development of electronic industries.
- The highly developed sources of power encourage growth of electronic industries.

.

- Advanced technology/research as promoted efficient methods of production/high quality goods competitive in the world market.
- The numerous sea ports ease the importation of raw materials and importation of finished electronic goods
- Japan has skilled industrious workforce, which enhances efficiency in production.

9. a) (i)

- Trawling
- Purse-seining
- Drifting /gill net
- Lining /Line /hook and line/longline

(ii)

- Salmon
- Mackerel
- Herring
- Haddock
- Flounder
- Tuna
- Sardine
- Pilchard

(iii)

Indented coastline

- These provide secure breeding grounds for fish because the bays are sheltered from the sea waves.
- The sheltered bays provide suitable sites for building fishing ports/fish landing sites Ocean currents
- The meeting of the cold and warm currents cause up welling of the ocean water which bring plankton/fish food to the surface.
- Colder currents provide ideal temperature for survival of numerous species of fish/growth of planktons.

b)

.

- To increase the fish number/ restock over fished areas by breeding fingerlings in fish farms and then release them into the sea/induced fish regeneration.
- Standardizing the size of fish nets used in fishing to ensure that only the mature fish are caught.
- Restricting disposal of untreated waste into the sea to ensure that the water remains clean for survival of fish.
- Enforcing the international conventions in order to protect the endangered fish species
- Licensing fishermen to control their numbers and ensure that there is no ever-fishing
- Restricting fishing to specific seasons to allow for breeding and maturing of fish/ ensuring natural regeneration of fish..

c) (i)

- Freezing
- Salting
- Canning
- Sun drying
- Smoking

(ii)

- The occurrence of strong wind lead to high waves causing accidental drowning/destruction of fishing vessels and nets
- Most fishermen have poor fishing equipments/ motorboat engines which are inefficient. This leads to a low catch delayed landing.
- Fishermen lack appropriate storage/preservation facilities lead to low catch
- Presence of floating vegetation/water hyacinth entangles and tears the fishing nets, which is a loss to the fishermen. // hunters movement of fishing boats.
- Parts pf the lake shores are swampy/marshy which makes the landing of the catch difficult
- Insecurity // theft of fish and fishing equipment discourages the fisherman.

.

K.C.S.E 2004 GEOGRAPHY PAPER 1
MARKING SCHEME

1. a) Loamy Clay Silty Sandy Gravel
(Any 2x1 =2mks)

b) Helps soil to retain moisture
Aerates the soil
It provides essential minerals to the soil
It improves the soil texture/structure Any 2x1=2mks

2 a) It is the angular distance north or south of the equator. It is an imaginary parallel line drawn from west to east and measured in degrees north or south of the equator.

b) The earth rotates 15^0 in 1 hour so Hola will be a head by: 40^0 2hrs 40 mins (2mks)
15^0 so it will be 240 pm at Hola (2mks)

3 a) P-Joint R-Clint 1-Crike

b) Rain water absorbs carbon dioxide to form a weak acid (carbonic acid)
The rain falls on jointed limestone rocks
The percolating rain water reacts with limestone rock to form calcium bicarbonate ($C_a(HCO_3)_2$). (3mks)

4. a) i) This is a climatic condition is a restricted area due to small differences 3.g aspect, slope, vegetation and human landscapes (2mks)

ii) It is a condition where the incoming solar radiation passes through the atmosphere while the outgoing terrestrial is blocked by the gases/ atmosphere making the earth retain most of the terrestrial radiation. This makes the earh to be warmer than it would have been or it is a condition where the atmosphere balances the incoming and out-going and out-going terrestrial radiation making the earth to retain optimum heat.
Any 1 x2 =2mks.

b)

	Instrument	**Element**
i)	Rain gauge	Rainfall
ii)	Thermometer	Temperature
iii)	Barometer	Pressure
iv)	Hygrometer	Humidity
v)	wind vane	Wind Direction
vi)	Anemometer	Humidity
vii)	sun shine recorder	Sun shine

(any 3x1=3mks)

.

5. a) A lake is an accumulation of water in a wide hollow or depression/it an extensive hollow in the earth's surface which contain water (Any 1x1= 1mk)

b) By erosion

By Earth Movements

By vulcalnicity/ volcanic activity

By human activity

Mass movements e.g landslide Any 3x1 =3mks

SECTION B

6. a) i) Latitude- 0^0 151 N, Longitude- 35^0 30 1 E

ii) 8.5km^2 (8.0 – 9.0) (2mks) b) i) Wattle

ii) Relief

- On the slopes of Keiyo escarpment there are thickets, forest and woodland.
- The lowland areas/ low attitude areas support scrub and scattered trees - The high plateau area to the west have woodland, ppyrus swamps.

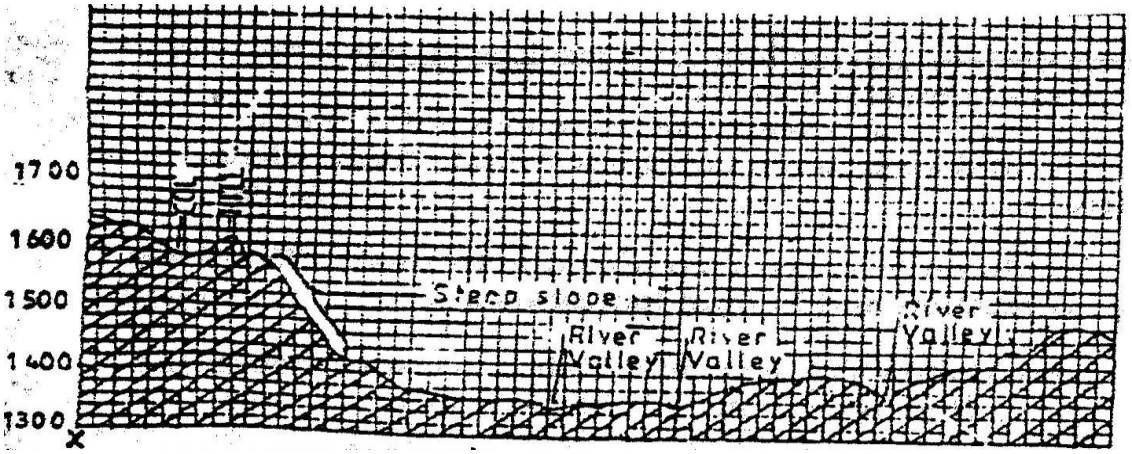
(Any 2x1 = 2mks)

Human Activities

- Areas with human settlement have scattered trees and woodland
- The forests are protected through creation of forests reserves e.g Tingwa hill forest.
- On the western side of the map most of the natural vegetation has been cleared for wattle plantation.
- Saw milling has reduced the size of natural forest in the west

Any 2x 1 = 2mks

c) A cross section from x to y



(i) Title – 1mk Trend -1mk

.

(ii) Labelling axis

Horizontal	1mk
Vertical	1mk
Features	(1x 4) = 4Mks

(iii) $VE = \frac{V.S}{H.S}$

$= 1/10000 \times 50{,}000/1$

$= 5$

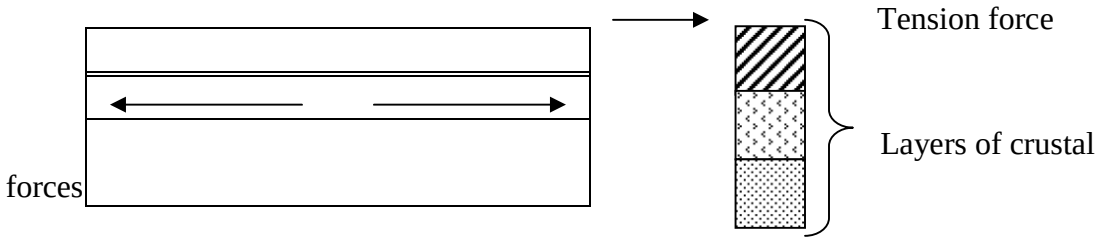
d) (i) Motorable track
Dry weather road — Any 2x1 = 2mks

(ii) Residential
Communication
Trading
Health Services
Transport — Any3 x 1 = 3mks

7a) i) Tilt block — Any 3x1
Escarpment/scrap slope
Block mountain/ horsts — Any 2x1=2mks

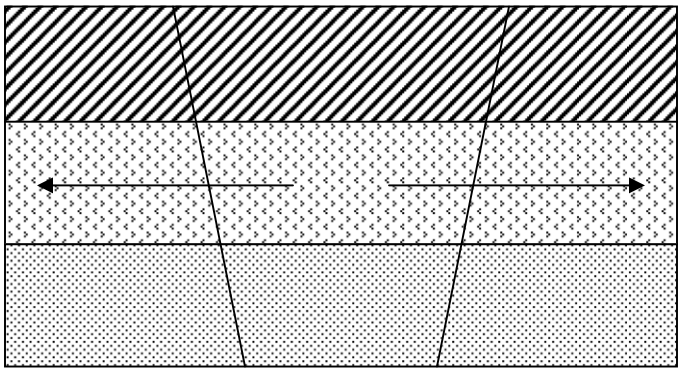
(ii) Residential
Communication
Trading
Health Services
Transport — Any 2x1 = 2mks

Key



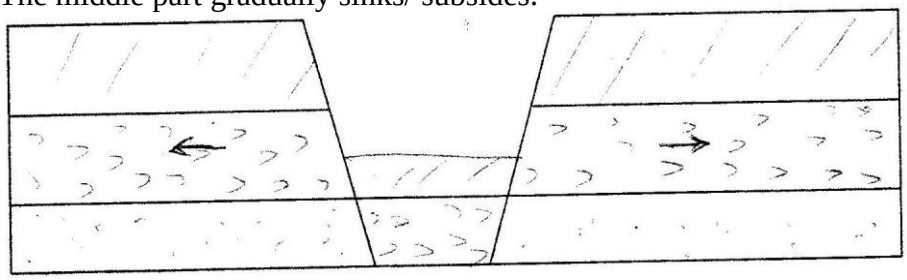
.

- Layers of rocks are subjected to tensional forces when there is some tensional forces when there is some instability within the earth's crust.
- Parallel normal faults develop/lines of weakness develop.



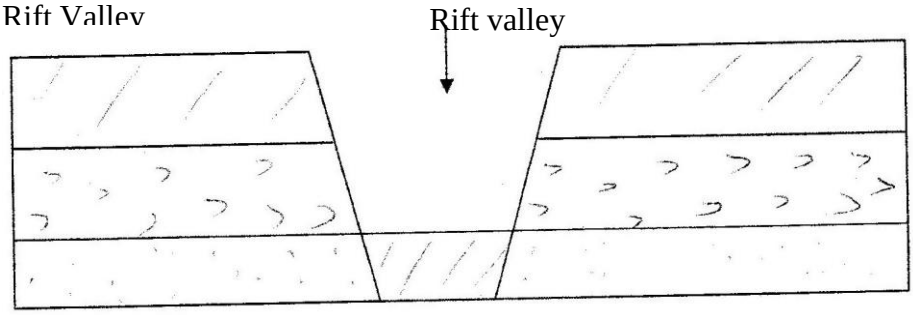
Normal faults

The middle part gradually sinks/ subsides.



The sunken middle part forms a depression known as the Rift Valley

Rift Valley



b) Faulting / fault scraps make it difficult to construct roads/ railways.
- Depression in the Rift valley contain water that forms lakes
- Faulting exposes minerals such as diatomite
- Step faulting makes rivers to have water falls, rapids and cataracts - The scrap slopes / steep slopes tend to discourage settlement.
- Some rivers such as the Katonga in Uganda have had their directions of flow changed. (Any 4 x 2 = 8 mks)

.

c) i) To enable them draw up study objectives / hypothesis

-To familiarize themselves with the area of study

- To enable them draw a route map
- To enable them prepare a work schedule / plan of activities
- To enable them identify / sort our relevant tools / equipment for the study
- To identify suitable methods of data collection
- To seek permission from the occupants of their site of study.
- To enable them prepare financial (Any 4x1 = 4mks)

d) i) -It is expensive
- It is time consuming

-It is tiresome

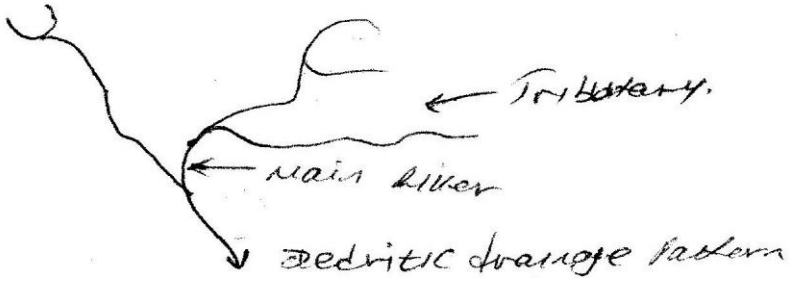
- It is limited only to direct sources / primary sources
- It is only suitable to the signed people (Any 3x1 =3 mks)

(a) Amount of precipitation / rainfall

- The nature of the slope of the land / of gradient of the land
- The nature of the solid / the level of saturation
- The nature of the underlying rocks
- The amount of vegetation cover
- The rate evaporation
- Human activities (Any 4x1 = 4mks)

b) The fine, materials are carried in suspension because they are light.
The heavy materials are rolled / pulled along the bed of a river.
(Any 3x2 = 6mks)

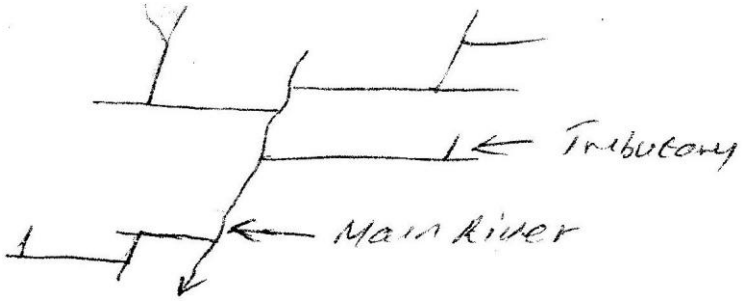
c) i) Dendritic



The river has many tributaries that join the main river at acute angles.

The river and its tributaries form a pattern of a tree and its branches. ii) Trellis

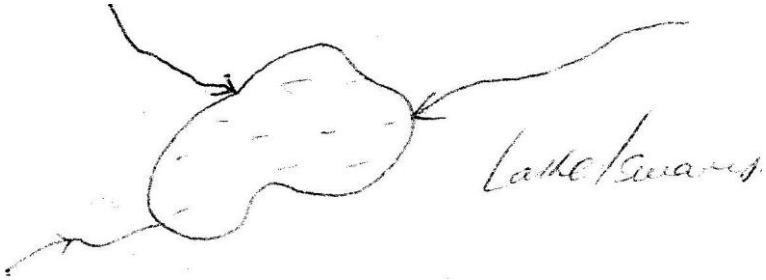
.



The main river has tributaries / streams that flow parallel to each other.

The tributaries join the main river at right angles.

iii) Centripetal



Many rivers flow into a central basin from all directions. d)

i) Stating the objectives / hypothesis of the study

- Identifying / selecting suitable methods of data collection.
- Seeking permission from the relevant authority
- Pre – visit the area of study
- Reading relevant materials
- Fixing the date for the study
- Dividing themselves into groups and appointing group leaders.
- Identifying / Selecting suitable methods of data analysis
- Drawing a route map
- Collecting relevant materials / tools to use (Any 5x 1 = 5mks) ii) Taking photographs
- Interviewing resources persons
- Estimating / measuring the height of the falls
- Drawing the waterfall
- Reading information brochures

9. a)i) X – Laccolith

Z –Dyke

ii) Rocks beneath the crust are in a semi –solid state due to high temperature and high pressure.

- When pressure decreases the rocks become semi- fluid and are known as magma.
- Earth movements cause vertical or horizontal cracks in the rocks

.

The molten rock / magma forces itself through the cracks / fissures.
- When magma cools and solidifies in a horizontal crack or bedding plane it forms a feature called a sill. (4mks)

c) It has a vertical vent or pipe
- It is composed of alternating layers of ash / and lave
- It is conical in shape / steep sided
- It has a side vents
- It has conelets / parasitic cones on the sides
- At the peak it may have a caldera / crater / plug (Any 4x1 = 4mks)

d) Volcanic mountains are sources of rivers which provide water from domestic, industrial, transport and irrigation.
- They influence the formation of relief rainfall that encourages agricultural activities.
- Volcanic soils are suitable for agriculture.
- Timber for construction / building industries
- The volcanic mountains form beautiful sceneries that attract tourists. - Hot springs / geysers are used to generate geothermal - The crater laters are fishing / breeding grounds for fish.
- Volcanic rocks provides materials for construction / buildings.(Any 4x2 = 8mks)

d) There is no field laboratory where the rock samples can be analyzed.
- Students do not have adequate skills to analyze the samples so there is need for expert opinion.
- There is no adequate time in the field
- To enable them build a collection of rock samples / future studies
- It would expose more students to their findings through display of their findings.
- To create interest / motivation and to deepen the understanding of the subject.(Any 4x1 = 4mks)

ii) Some students may have been cut / injured by the rocks
- There may have been harsh weather / weather change.
- Inability to collect the right samples.
- Inaccessibility of some sample sites
- The heavy weight of the rock samples (Any 2x2 = 4mks)

GEOGRAPHY PAPER II 2004

MARKING SCHEME

SECTION A

1. a) Climate / rainfall / temperature

.

Altitude Relief Aspect Soils / edaphic factors
Animals Human Activities Government policy
(Any 2x1 = 2 mks)

b) Provide poles for construction / furniture making
Source of fuel
For aqua – culture
For export / earn foreign exchange / income
The bark / fruits are a source of tannin (Any 3 x 1 = 3mks)

2. a) L – gas
M – Oil / petroleum
N – Water

b) Wax
Bitumen / tar / asphalt
Sulphur
Lubricants / grease
Resin / petrol – chemicals (Any 2x1 = 2mks)

3 a) Sandy beaches
Marine life / wild life / mangrove forests
People culture (accept examples of cultures)
Coastal land forms e.g. caves / cliffs / Cora (Any 2x1 (2mks) b)
They are tourist attraction
For education purposes/ research purposes.
For easthetic beauty
For posterity / for future generation
For preservation of culture (Any 3x1 = 3mks)

4a) Manufacturing is a process of changing raw materials into a finished product / commodity ready for use while tertiary industries provide services facilities for use by other industries / consumers.(any 2x1 = 2mks)

b) Availability of coal / iron ore / raw materials
Cheap water transport on River Rhine
Availability of capital from rich merchants / krupp family / founders
Abundant sources of power such as coal / H.E.P.
Ready market from control / Western Europe / local market
Availability of water from river Rhine / lipper / Ruhr (Any 3x1 = 3mks)

5a) Presence of undulating landscape
Adequate water supply
Large tracks of land / expansion tracks of land
Adequate pasture for the animals (Any 3x1 = 3mks) b) Aberdeen Angus
herefore

.

Charolais Red Angus

Short Horn Galloway

Santa Gertrudio

6a) ii) They allow ease in comparison interpretation.

They give clear visual impression

They are easy to read

They easily show the trend of the given data.

Easy to draw / construct (Any 2x1 = 2mks)

b) 130,000

- 70,000 60,000 x 100 = 85.7 / 85 2mks

60,000 70,000

c) Cool / warm climate / condition. 10^{o}c to 28^{o}c throughout the year
High rainfall/ 1000 – 2000 mm per year.

Well distributed rainfall through the year.

Areas the are frost – free

Deep light and well drained soils

Gently sloping / undulating land

Acidic / Volcanic soils / ph of 4 – 6

High altitude / 100 m – 2300m a.s.l (Any 5 x 1 (5mks)

d) Delayed payments / low payments that lowers the morale of the farmers mismanagement / Embezzlement of funds thus farmers are discouraged

Poor feeder roads in the tea growing areas lead to delays in collection / delivery of the green leaf hence wastage.

Adverse weather conditions such as long droughts / hale storms lead to destruction of the crop / lower production.

Fluctuation of prices in the world market makes it difficult for the farmer to plan ahead/ lower morale/ discourages farmers

High production costs due to high prices of farm inputs leads to lower yields since most farmers cannot afford to buy them

Pests/ Fungal diseases destroy crops. Reduce yields (pests e.g. red spider-mites, weevils and beetles), termites, nematodes.

Inadequate/ unreliable transport facilities delays the collection/ delivery of green leaf reducing the quality.

Labour shortage/ expensive labour leads to low products/quality.

7. (a) (i) P- Kasese

Q – Butere

R - Kigoma

(ii) S- Maize / wheat/ Cattle/ / Coffee/ Passengers Any 1 x 1 = 1 mk

.

T- Soda Ash

(iii) U- Tanga (1mk)

V- Malawi/ Nyasa (1 mk)

(b) (i) It is cheaper to construct/ Maintain

Roads are flexible/ provide door to door services

Roads can be used by a wide range of transport agents/ they are more Versatile

The roads are faster to use

There is greater demand for road transport than railway transport

Any 4 x 1 = 4 mks)

(ii) Narrow – roads where heavy traffic limit ease of movement and overtaking the Pot- holed sections of the roads may cause tyre burst/ vehicle breakdowns/ may make drivers who are avoiding potholes crash the vehicles

The sharp beds may cause vehicles to veer off the roads/ stiff grade may make drivers to lose control of vehicles

The narrow bridges may cause vehicle to crash

Sub- standard surfaces may cause vehicles to skid/ overturn

Blurred/ missing road signs may make drivers lose control of vehicles

Unavailability of pedestrian paths/ sidewalks may cause pedestrians to walk on the road.

Dusty roads may reduce visibility leading to accidents

Muddy roads during the rainy season may cause vehicles to collide

Any 4 x1 4 mks)

(c) (i) Flowers: Roses/ Carnations/ orchids

Fruits: Oranges/ Mangoes/ avocados etc

Vegetables: French beans/ cabbages, etc Any 2 x 1 = 2 mks

(ii) The horticultural crops are highly perishable thus necessitating faster means of transport

Same are light in weight which makes it easy/ suitable to export by air

There is high demand for the produce thus the need to supply urgently

High market prices are able to pay/ compensate for the airfreight charges

Any 2 x 2 = 4 mks)

8. (a) (i) Central highlands

The Nyika Plateau

Coastal lowlands/ plains 5 mks)

.

(ii) Nyando
Nzoia
Yala
Kuja/ Gucha Any 2 x 1 = 2 mks

(b) The stagnant water become breeding ground for vectors that cause water related diseases.
Flood causes loss of property/ lives
Floods away crops leading to food shortages/ Famine
Floods wash away bridges/ roads/ telephone lines/ Air fields
Disrupting transport and communication
People are displaces by floods/ are made homeless Any 4 x 2 = 8 mks

(c) (i) The presence in the environment of contaminants, which are injurious to human. Land plant and animal life 2 mks

(ii) The garbage may result to foul smell/ air pollution, which is hazardous to human health.
When it rains, the dumped waste. Garbage is washed to rivers ceasing water pollution
Garbage can is a breeding ground for rodents/ flies/ cockroaches, which can cause disease outbreak e.g. plague
Accumulation of garbage leads to blockage of roads/ drainage systems
Garbage heaps is na eye sore as they make the environment ugly.
Oil spillage/ Industrial wastes leads to destruction of flora.
Any 3 x 2 = 6 mks)

(d) Burning waste materials
Digging pits for throwing rubbish
Minimizing use of harmful chemicals/ sue of organic manure
Creating awareness on the dangers of land pollution and how to control it.
Recycling of waste materials/ treatment of industrial waste
Government legislation against dumping.
Setting up proper garbage collection/ management program.
Any 4 x 1 = 4 mks

(a) (i) Nulcuted/cluster
Scattered / dispersed
Linear *Any 2 x 1 = 4 mks*

(ii) Urban - Urban
Rural – Rural

.

Rural – Urban

International - External *Any 2 x 1 = 2 mks*

(iii) Retirement from formal employment in urban areas / retrenchment.

Lack of jobs in urban centers

Insecurity in urban centers/ high crime rate

The strategy of district Focus for Rural Development/ government policy.

Provision of infrastructure facilities in the rural areas/ social amenities.

Setting up industries in rural areas/ discovery *Any 3 x 1 = 3 mks*

(b) Insecurity leads to fear

Unemployment / idleness leads to high crime rate/ social evils

Inadequate housing has led to emergence of slums/ poor housing/ high rents limited land leading to limited urban extension.

Traffic congestion cause delays/ slows movement

Inadequate transport facilities leads to delayed movements/ long queues

Inadequate social amenities leads to congestion in hospitals/ schools/ water shortage / poor sanitation

High rate of crime leading to insecurity/ loss of proper life.

Any 4 x 2 = 8 mks)

(c) Leather tanning

Tobacco treatment/ processing

Textiles

Cotton spinning

Tanning industry *Any 2 x 1 = 2 mks*

(ii) The abundant water supply from river Chania which is used for industrial Purposes.

The roads/ railway links/ accessibility have made it easy to receive raw materials and sell the industrial products.

The high population around Thika provides ready market for the industrial products.

The rich agricultural hinderland has provided raw materials for industries Nearness to Nairobi has led to industrial interdependence / ease of access to supplies.

The government policy of decentralization of industries has encouraged the growth

There is expensive flat land for setting industries *Any 4 x 2 = 8 mks*

.

GEOGRAPHY 312/1 KCSE 2005
MARKING SCHEME.
SECTION A

1.a)

-The passing star theory (2mk)

- The Nebula cloud theory

b) -Troposphere

-Stratosphere

-Mesosphere

-thermosphere (4x1 mks)

2 a) E – Surface run off

F – Evaporation

G – Condensation (3 x 1 mks)

b) a watershed is a ridge / high ground that separates two or more river basins, while a catchments area is the entire area from which a river draws its waters.

3. a) -They occur in layers called strata

-They contain fossils

-They are not crystalline in nature but are composed of particles of pre-existing rocks.

b) – Rock salt

- Gypsum
- Flint
- Travertine / trona
- Limonite
- Hematite

4. (a) Mount Kenya

(b)

- Snow accumulate in pre- existing depression on the mountain side
- The snow action/ navigation/ alternating free-thaw action enlarges the hollow
- Plucking process steepens the back wall
- A deep armchair shaped depression called corries fills up with molt water forming a tarn (4 x 1 = 4 mks)

4. (a) This is a type of vegetation that grows without interference and modification by human activity.

.

(b) - Mediterranean vegetation is composed of shrubs/ thickets/ bush/thorn bush

- Grasses dry off, during summers drought and winter
- Some trees are deciduous
- Some plants have fleshy leaves
- Trees have thick rough barks/many plant have waxy/ spiny/ small leaves
- Plants have long tap roots
- Many plants are evergreen

SECTION B

6. (a)

(i) 1 cm represents ½ km or 1 cm represents 500m (1mk)

(ii) 298938 (1mk)

(iii) Thicket 3 x 1 = 3 mks)

(b) (i)

- Rivers
- Dams/ lake
- Water holes 2 x 1 = 2mks)

(ii)

Function	Evidence
- Health services center	- Dispensary
- Educational services	- School
- Religious services	- Church
- Commercial center	- Shop
- Transportation	- Roads

(Function ½ Evidence ½ x 4 mks)

(c) (i) & ii) – Cross – section – graph paper

(iii) Vertical exaggeration = $\frac{\text{Vertical scale}}{\text{Horizontal scale}}$

= 1/2000 ÷ 1/50,000 = $\frac{1}{2000}$ x $\frac{50,000}{1}$ = 25 times

(d) (i) Reasons for a reconnaissance

- In order to be familiar with the area before the field study
- To establish contacts possible respondents for the study
- In order to help in preparing methods for data collection
- In order to determine the cast of the study
- To identify possible problems likely to be faced and their possible solutions

(4 mks)

.

(ii)

- Sandy soil
- Clay soils
- Loamy soils
- Cotton soil (2mks)

7. (a) H - bay
J- sand bar
K – Tombolo
L- Headland
M- Estuary (5 mks)

(b) (i)

- The shore should be gentle for deposition to take place
- The wave breaking must have a strong swash and weak backwash / be constructive wave
- The sea should be shallow towards the coastline/ shone
- The sea water should have a large load

(ii) Hydraulic action- the power of waves remove lose rock particles from the cliff/ rocks. The waves also enter.

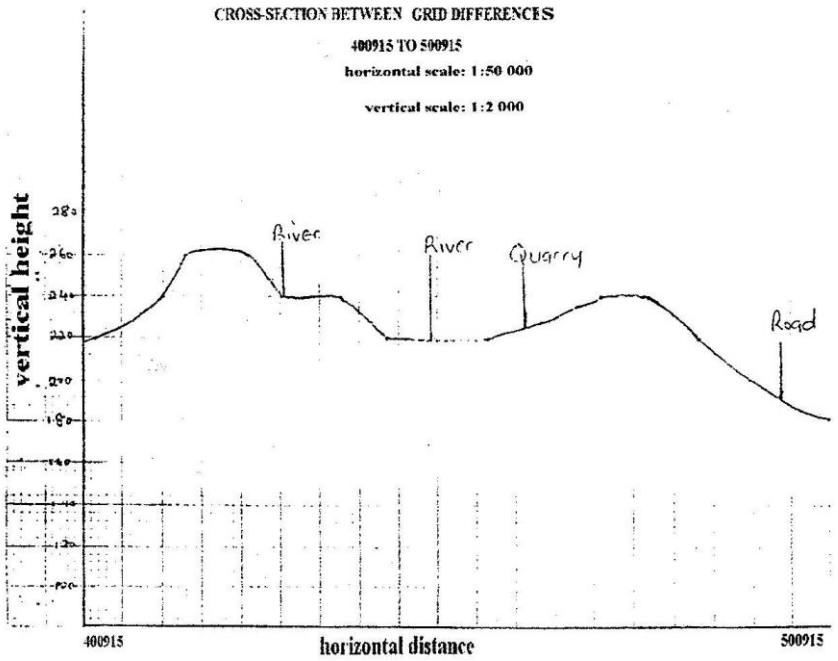
Cracks / crevices of the rocks enlarging the crevices/ joints/ cracks by creating shock waves

Abrasion- the materials/ load carried by the waves scour coastal rocks making them smooth as they erode.

Attrition- the materials carried by waves constantly collide against each other and coastal rocks, thus, reducing in size.

.

Cross section between grid references 4000915 to 500915



Solution – the sea water dissolves and removes and removes materials in solution. This is common along limestone coasts (any 3 x 2 = 6 mks)

- Intense Compressional forces act upon rock strata resulting in a fracture along its axis
- The upper limb is pushed over the lower limb along the thrust plane - Horizontal displacement of the limb occurs along the thrust plane

7. (a) Objectives
   - To find out the type of depositional features along the Kenya coast
   - To find out the factors influencing the formation of depositional features
   - To find out the economic significance of coastal features of deposition
   - To find out the process involved with formation of coastal features of deposition
   - To find out the location of depositional features along the coast of Kenya

   (5 x 1 = 5 mks)

   (b)
   - Making notes
   - Taking photographs/ videos
   - Filling in tables/ tallying
   - Field sketching
   - Drawing maps (sketch) mapping

.

8. (a)

i. Asia - Himalayas (1mk) ii. North America - the rockies / Appalachians (1mk) iii. South America- the andies (1mk)

(b)

- Cuestas
- Escarpments
- Intermountain basins/ plateaus
- Synclinal valleys (4 mks)

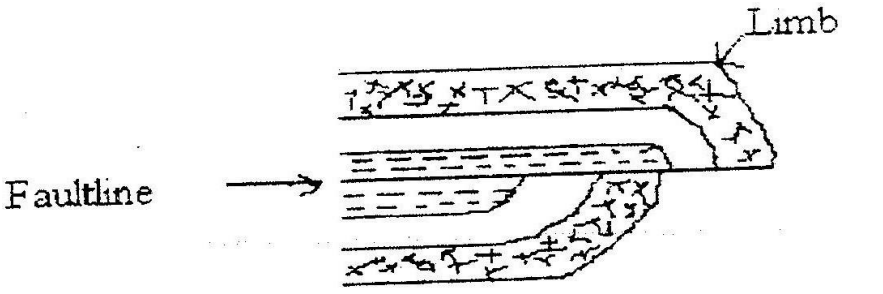


Diagram & explanation = 6 mks (c)

Effects of fold Mountains of human activities

- Fold Mountains are water catchments areas. They trap rainfall which feed rivers that provide water for domestic use/ for irrigation/ for industrial use/ HEP generation
- Fold mountains are often forested and provide valuable timbers used in construction and building industry
- Some fold mountains have valuable deposition such a coal and petroleum
- Fold mountains attract tourists, thus earning countries foreign exchange
- Fold mountains influence transport systems either as barriers or as passes

(Any 4 x 2 = 8 mks)

(d) (i) – They would divide themselves into groups

- They would review secondary objectives and hypotheses for study
- They would formulate objectives and hypothesis for study
- They would conduct a pre – visit / reconnaissance to the areas under study
- They would prepare a working schedule for the study
- They would seek for permission from relevant authorities

(Any 3 x1 = 3 mks)

(ii) They would get first hand information about land forms in their districts

- It enables students to relate what has been learnt in classroom to what is in the field
- It allows students to use their observation skills to make conclusions

.

- It enables students to acquire appropriate attitudes towards the environment
- It breaks the classroom monotony for the students and teachers

(2 x1 = 2 mks)

9. (a) (i) Q- Polar cold climate/ tundra climate

(ii) Ocean currents R – Canary ocean current

S- Gulf stream (2 mks)

(b) T – Tropical equatorial climate

Characteristics

- Temperatures are high throughout the year at about 27^0C (5^0C)
- Experiences high rainfall of between 1,500mm and 2, 000mm evenly distributed throughout the year
- Experiences a double maximum rainfall region/ two rainy seasons caused by overhead sun twice a year
- The region also has high humidity due to heavy rainfall and high evaporation rates
- Major winds experienced are the south – East and North – East trade winds
- Experience low pressure all year round thus no distinct season.
- Rainfall is mainly convectional type usually accompanied with thunderstorms, highlands experience relief/ orographic rainfall (8mks)

9. (c) Factors influencing climate

(i) Altitude

- This is the height above sea level
- Lowlands are usually warmer than highlands because the atmosphere becomes thinner as altitude increases where the ground losses heat faster
- Atmospheric pressure decreases with increase in altitude. This is due to the weight of atmospheric air above highlands being less than in lowlands

(ii) Distance from the sea

- During hot seasons, coastal lands are relatively hotter than inland areas on the

  same latitude due to the existing effects of the sea breezes. By the time the sea breezes reach inland areas they have adapted to the temperature of the land over which they are passing.
- Coastal lands receive more rainfall that the interior of continents. This is due to the coasts receiving moist winds from the sea but by the time the winds reach inland areas they are usually dry. (3 x 2 = 6 mks)

.

(d) (i)

- The site should be flat and free from flooding
- It should be open to the surrounding landscape
- It should be far from obstacles such as tall trees and buildings
- It should be secure and free from intruders (2 x 1 = 2 mks)

(d) (ii) Stevenson screen

- Painted white to help in reflecting heat from the sun, thus maintaining shade/ room temperature in the screen (2mks)
- Has louvers to allow free circulation of air/ keep the screen well ventilated (2mks)

GEOGRAPHY 312/2 KCSE 2005

MARKING SCHEME

1. (a) Two type s of human settlements
   - Rural settlements
   - Urban settlements (2 mks)

   (b) Settlement patterns marked

   Q - Nucleated/ clustered

   R – Linear (2 mks)

2. (a) Characteristics of Jua Kali industries in Kenya

- Are operated by individual or small groups
- Are pursued as part time or full time occupation
- They require low capital investment
- They use simple equipments
- They use local/ recycled raw materials
- They use basic/ simple skills in craft
- They are mostly operated in the open / sheds
- They are widespread (Any 3 x 1 = 3 mks)

(b) Problems facing Jua kali industries in Kenya

- Difficulty in getting raw materials
- Inadequate capital for expansion
- Competition from other well established industries/ competition from imported products
- Inadequate marketing skills/ strategies
- Inadequate security (Any 3 x 1 = 3mks)

3. (a) (i) The H.E.P stations marked

.

S- Masinga (1 mk)

T- – Kindaruma (1 mk)

(ii) The proposed H.E.P station marked

U- Mutonga (1 mk)

(b) Renewable sources of industrial energy other than water

- Wind
- Wood biogases
- Solar
- Geothermal / underground steam

4. Ways in which drought affects the agricultural sector in Kenya
   - Leads to shortage / lack pasture
   - Leads to crop failure
   - Leads to shortage/ lack of water for livestock / irrigation
   - Leads to shortage of agricultural raw materials for agro- based industries
   - Leads to reduction in export of agricultural commodities in the farmers income (any 4 x 1 =4 mks)

5. (a) Conditions necessary for bee keeping
   - Availability of water
   - Availability of flowering plants
   - Sheltered area from winds/ direct sun
   - An area free from disturbances/ free from predators/ free from people and other livestock
   - Hot conditions/ $20^0C – 30^0$ (Any 3 x 1 = 3 mks)

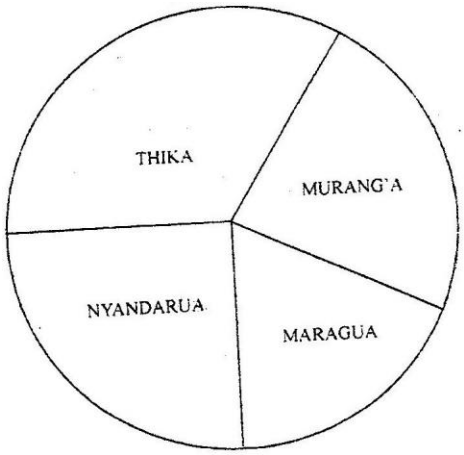
   (b) Reasons why the government of Kenya is encouraging bee keeping in the country
   - It provides employment / income
   - It is a source food supplements/ medicine
   - It is a source of raw materials for industries
   - It is an alternative land use for arid/ semi arid lands
   - It is way of diversification of the economy (any 3 x1 = 3 mks)

6. (a) Two reasons why Thika districts has a higher population than Murang'a District

.

- Nearness to Nairobi- Many people live in Thika town and work in Nairobi because house rents are lower. This increases the population of the district
- Thika town is an industrial centre and attracts large population of workers unlike Murang'a were there are few industries that are rural based.
- Thika town is a larger commercial centre compared to Murang'a town. - Thika attracts many people who operate different businesses. This increases the population of the districts. (Any 2 x 1 = 2mks)

A pie chart representing the population of the four districts



Title – 1 mk

Calculations for each segment 1 x 4 = 4 mks)

Each correctly drawn segment 1 x 4 = 4 mks)

(iii) Other statistical methods of representing data

- Divided rectangles
- Compound bar graphs
- Simple bar graphs Any 2 x 1 = 2 mks)

(b) (i) Advantages of using a pie chart to representing data

- Gives a clear visual impression
- Easy to interpret
- Easy to compare
- Easy to read Any 3 x 1 = 3 mks)

(ii) Reasons for carrying out population census - For planting purposes

- To help in the distribution of resources
- To make estimate of population growth e.g. though migration
- To identify the rates of deaths and births

.

- To help government in creating more administrative units (3x1 = 3 mks) (c) How the following factors have lead to population increase in Kenya

i. Early, marriages

People who marry early are likely to get more children because they have along period during which they can get children

ii. Improved medical facilities

The child, mothers and the general population have better chances of survival because of the available medical facilities. The country is able to control the spread of diseases and has ability to cure diseases.

This leads to higher survival rates (2 mks)

iii. Cultural beliefs

Some cultures encourage large families, in almost all culture; there is a tendency of people preferring male children. This may led to those who are not getting male children to have a large family as they hope to get a boy. (2 mks)

7. (a) (i) Minerals mined in areas marked

W- Fluospar (1mk)

X- Gold (1mk)

Y- Diamonds (1mk)

Z- Copper (1mk)

ii) Three methods of mining

- Underground /shaft/adit/slope/solution
- Alluvial/placer/dredging/hydraulic
- Opencast/strip (3mks)

i) Sea parts through which some of the minerals mine in East Africa are exported.

- Mombasa (1 mk)
- Dar es salaam (1mk)

c) Factors that influence exploitation of minerals

- Modes of occurrence
- Economic value of mineral/quality of the ore/cost of mining
- Level of technology
- availability of transport facilities
- Government policy/ political influences
- Availability of market (Any 5x1 =5mks)

d) Ways in which soda ash contributes to the economy of Kenya -It is exported to each foreign exchange which is used in the economic development of the country.

.

-It creates employment opportunities

-It provides raw materials to the manufacturing industries leading to industrialization e.g the glass manufacture

-It has led to the development of social amenities in the area

-It has led to the growth of Magadi town

-It has led to the growth of local and foreign tourism

-provide revenue to the government through taxes (Any 2x3=3mks)

e) Ways in which mining derelicts can be reclaimed

-planting trees

-Creating a park to attract tourists

-Introducing aqua culture

-Landscaping for settlement or farming

- Refilling the holes (any 3x1=3mks)

8 a) i) provinces in Kenya where wheat is grown on large scale

- Central
- Rift Valley
- Eastern (Any 2x1=3mks)

ii) Physical conditions that favour wheat growing in Kenya

-Moderate rainfall/500 mm to 1270mm to enhance the growth of wheat

- Temperatures ranging from 15^0C to 20^0C /warm conditions to facilitate growth /maturity of wheat.
- A warn/dry/sunny spell for ripening and harvesting
- fertile volcanic soils to sustain high production
- Gently sloping/undulating landscape to allow proper drainage/mechanized cultivation (Any 4x2=8mks)

b) Comparison of wheat farming in Canada and Kenya under the following Sub-headings

Storage

i) -In both Canada and Kenya wheat is stored in grain silos -In Canada wheat on transit is stored in huge grain elevators and special car boxes while in Kenya it is stored in sacks

(Any 1x2 =2mks)

ii) Transport

-In Canada wheat is transported by railways (CPR and CNR) roads and water ways while in Kenya it is transported by roads and railways (Any 1x 2 =2mks)

ii) Market

.

- In Canada wheat is for both local and export markets while in Kenya wheat is for local market
- Canada has a larger and reliable local market than Kenya
- In Canada wheat is marketed by industries/government while in Kenya its marketed by N. C.P. B. or directly to the millers.

c) Climatic problems that affect wheat farming in Canada

- Low rainfall/unreliable rainfall which leads to crop failure/low yields. - Low temperature /long and cold winters which limit outdoor activities/ delays cultivations of wheat
- Frost which destroys wheat
- Hailstones which destroy wheat leading to low yields
- Strong winds causes soil erosion especially after ploughing resulting to loss of fertile soils. (Any 3x2 =3mks)

d) Negative effects of international trade

-Overspecialization/ overdependence on a particular item is risky incase of a fall in the prices in the world market.

iii) Market

- In Canada wheat is for both local and export market while in Kenya wheat is for local market
- Canada has a larger and reliable local market than Kenya
- In Canada wheat is marketed by industries/government while in Kenya its marketed by N.C.P.B or directly to the millers.

C i) Climatic problems that affect wheat farming ub Canada.

- Low rainfall/unreliable rainfall which leads to failure/low yields.

-Low temperature/ long and cold winters which limit outdoor activities/delays cultivations of wheat

-Hailstones which destroy wheat leading to low yields

-Strong winds cause soil erosion especially after ploughing resulting to loss of fertile soils. (any 3x2 = 6mks)

i) Uses of wheat

- Used as animal feed
- Used as human food
- Used for making adhesives/glued
- Used for paper/straw boards (any 3x1 =3mks)

9. a) i) International trade is the exchange of goods and services between different countries (2mks)

(ii) Major imports from Europe to Kenya

.

-Machinery

-capital equipment

-Capital equipment

-Pharmaceutical products /medicine

-Fertilizers

-automobiles

b) Factors that influence the import and export of goods in Kenya

-Government policy/government legislation/imposition of tariffs on imports.

-Demand for goods both locally and outside Kenya

- Variation of natural resources/ goods / quality of goods

-Availability of transport /communications

-The purchasing power

-the level of industrialization

-Quota system/tariffs imposed on Kenya's imports (Any 4x1 =4mks)

c) Ways through which Kenya will benefit from the renewed East African Cooperation

- There will be improved access to raw materials for industrial development -The expanded market will attract new investments from local and foreign sources which will lead to expansion of industries/more earnings

-There will improved access to raw materials for industrial development -The expanded market will attract new investment from local and foreign sources which will lead to expansion of industries/more earnings

-there will be exchange of research findings/training which will help in economic development.

-There will improved negotiating powers in the international arena

-There will be improved transport links between Kenya, Uganda and Tanzania which will facilitate faster movement of goods and people

-There will be increased employment opportunities because of free movement of people within the region/expanded trade.

-There will be mutual political understanding between Kenya and its neighbors.

(Any 4x2 =8mks)

d) Negative effects of international trade

-Overspecialization/overdependence on a particular item is risky incase of a fall in the prices in the world market.

-Imported items may become a threat to the local industries leading to closure of some of them

-some imported goods e.g expired goods or sub standard goods may have adverse effects on the citizens

-If a country depends on another, it may sometimes have to tolerate some undesirable gestures from such countries

.

-There may over exploitation of natural resources leading to their depletion e.g. minerals. (any 4x 2=8mks)

GEOGRAPHY PAPER 1 (312/1) 2006

MARKING SCHEME

SECTION A

1. (a) How does a sea breeze occur?

- During the day, the land heats faster than the sea
- The air over the land rises
- Cooler air from the sea blows towards the land to replace the rising air
- The cool air from the sea is called the sea breeze (Any 2 x 1 = 2 mks)

(i) Name the ocean currents marked H, J and K

H - Mozambique/Agulhas (1 mk)

J - Benguela (1 mk)

K - Guinea (1mk)

(ii) State two effects of a warm ocean current on the adjacent land

- It warms up the adjacent land
- It increases the humidity of the adjacent land
- It may lead to rainfall on the adjacent land *(Any 2 x 1 = 2 mks)*

Give two processes involved in each of the following types of weathering

(a) Physical weathering

- Pressure release/ offloading/ sheeting
- Block disintegration
- Exfoliation
- Frost action/ frost shattering
- Crystal growth/ crystallization
- Slaking/ wetting and drying
- Granular disintegration *(Any 2 x 1 = 2 mks)*

(b) Chemical Weathering

- Hydrolysis
- Solution

.

- Oxidation
- Carbonation
- Hydration *(Any 2 x 1 = 2 mks)*

(a) Name the plants marked F and G

F - Mars (1 mk)

G - Neptune (1 mk)

(b) State three effects of the rotation of the earth on its axis

It causes the occurrence of day and night

- It causes deflection of winds and ocean currents
- It causes the rising and falling of the ocean tides
- It causes variation in time at difference longitudes
- It causes difference in atmospheric pressure on the surface of the earth

(Any 3 x 1 =3 mks)

(a) Name two scales used to measure the intensity of an earthquake

- The Rossi – forrel scale
- The Mercelli scale (2 x 1 = 2 mks)

(b) Give three causes of earthquakes

- Gravitative pressure
- Collision of tectonic plates
- Energy release in the mantle
- Isostatic adjacent
- Violent Volcanic eruptions
- Nuclear explosions
- Adjucent along fault lines
- Building reservoirs
- Magma movement within the crust *(Any 3x 1 = 3 mks)*

(a) (i) Calculate the annual range of temperature for the town

$28^0 - 24^0C = 4$ (1 mk)

.

(ii) Calculate the total annual rainfall for the town (1mk)

(b) State two characteristics of the climate experienced in the town

- The town experiences high temperatures throughout the year 24- 28^0C
- The annual range of temperature is small / 4^0C
- Rain falls throughout the year / there is no marked dry season
- The rainfall pattern has double maxima
- The weather month is July/the driest months are December and January
- Rainfall is high/ 1803mm
- The hottest months are February to April/ coolest month is August

(Any 2 x 1 = 2 mks)

SECTION B

(a) (i) Give the six grid reference of the junction where the road to Ndaragua (D388) meters with the road to Nyeri and Nanyuki (B5) 114031 (2mks)

(ii) Calculate the bearing of point X from point Y

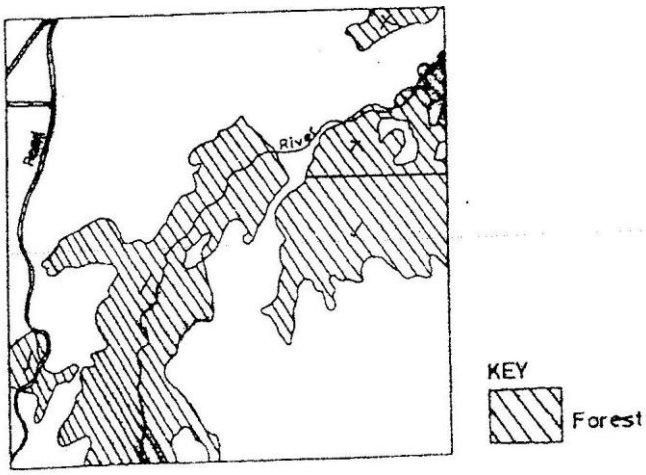
-312 - 314^0 (2mks)

(iii) Name three physical features found along the line XY

- River
- River valleys
- Scarp slope/ escarpment/ scarp face
- Gentle slope
- Seasonal swamp
- Woodland vegetation *(Any 3 x 1 = 3 mks)*

(b) (i) & (ii)

.



(c) Citing evidence from the map, explain

(i) Two physical factors that may have influenced the location of Nyahururu Town

- Availability of water from the nearby rivers fro domestic and industrial use
- The high altitude (over 2300m) which makes the area experience cool climate which makes the area ideal for settlement
- The gently sloping terrain/ flat land which is ideal for settlement and construction of roads as shown by contours wide apart
- Presence of the Thompson's falls which are a tourist attraction encourage settlement
- Availability of building stones, for construction of houses from the nearby areas/ quarries

(Factors, evidence & explanation must be mentioned to score)

(ii) Two factors that favour Saw milling in the area covered by the map

- Presence of extensive forests to provide raw materials
- Availability of transport by roads and the railway for transporting sawn timber and logs
- Large population shown by settlements provide market for the products *(Any 2 x 1 = 2 mks)*

(d) Describe the drainage of the area covered by the map

- The area has many rivers/ high density of rivers
- The water courses are generally permanent

- The rivers form dendrites patterns
- There are water sheds along Gitunda and Ol Ngarua road
- There are many reservoirs/ dams along the water courses
- Some of the rivers end in swamps
- There are swamps, papyrus and seasonal swamps
- There are rapids near; Thompson's falls
- Some of the rivers disappear underground especially in the north- west
- There are some artificial drains/ drifts especially in the south- western and southern parts of the area
- The rivers flow to different directions (Some to the north, others north-west wards and others north – eastwards)
- There is a pond (020130)
- There is parallel drainage pattern along the escarpment
- Short disappearing rivers (Any 6 x 1 = 6 mks)

7. (a) (i) Name the process that takes place at
   - Point P: deposition (1 mk)
   - Point Q: erosion (1mk)

   (ii) Name the feature formed at print R
   - A cliff / bluff (1 mk)

   (iii) Describe how an ox- bow lake is formed
   - An ox – bow lake forms when a river starts to meander on a flood plain
   - Lateral erosion dominates on the outer side of the bend while deposition takes place on the inner bank
   - Lateral erosion results in the reduction of the rock of land between adjacent bends
   - Deposition on the meander side, especially during floods blocks off the meander
   - The river abandons the meander and follows the newly short cut tat was the neck of land

.

- The abandoned meander with its water forms an ox-bow lake

(any 5 x1 = 5 mks)

(b) State five characteristics of a flood plain

- They have a gently sloping gradient/ flat surface
- They have thick alluvial deposits/ silt/ fertile soils
- They have levees on either side of the river banks raised river beds
- Some flood plains have marshes/ swamps
- Some flood plains nave braided channels
- Some have deferred tributaries
- Flood plains have river bluffs
- They have meander/ bends and some have Ox- bow lakes at their edges
- Some have wide river valleys
- Some have deltas/ distributaries (Any 5x1=5mks)

(c) Explain three causes of river rejuvenation

- A fall in sea level which increases the velocity of the river, thereby increasing the erosive power of the river

.

- Regional uplift which creates negative sea level moment and thus makes the river to renew its erosive activity.
- Vertical erosion by the river may expose resistant rock which creates a knick point thus renewing the rivers erosive power.
- Presence of a lake along the river flow out of the lake, its erosive power increase
- Increase in river discharge due to increase in precipitation of river capture may cause a river to renew its erosive power
- Unequal regional subsidence of land along the river course increases the gradient and therefore the erosive power of the river. (Any 3 x 3 = 6 mks)

(d) Your class is required to carry out a field study of a river

(i) What would be the advantage of diving the class into groups According to the stages of the long profile of the river?

- The class will be able to study the entire course of the river
- It will enable them to obtain detailed information on each stage of the river
- It will save on time
- It will enable the study to be carried out in an orderly way
- It will encourages participation of all the members of the class/ encourage individual roles
- It will facilitate interaction among the group members

(Any 4 x 1 = 4 mks)

(ii) What would be disadvantages of using secondary methods of Collecting data in this kind of study?

- Recorded data could be out of date
- Conditions under which such data was collected may be changed
- Obtaining records on the particular river was collected may be difficult (Any 2 x 1 = 2 mks)

8. (a) (i) What is an ice sheet?

.

- It is a continuous mass of ice covering a large area/ surface (2mks)

(ii) Give two reasons why there are no ice sheets in Kenya

- Kenya experience high temperatures under which ice-sheets cannot from
- Most parts of Kenya have low altitudes
- Kenya is found at low latitudes (Any 2 x 1 = 2 mks)

(ii) Explain three factors that influence the movement of ice from the place of accumulation

Gradient of the land- Ice moves faster when the slope is steep

- Temperatures/ seasonal changes-Higher temperatures result into thawing, leading to faster movement of ice
- Nature of the surface – when the surface on which ice is moving is rough, it causes friction lowering the speed of the movement of ice
- Size/ thickness of glacier – large masses of ice exert pressure which lead to melting of ice underneath. This increases the speed of ice movement (Any 3x2 = 6mks)

(b) Describe how an arête is formed

- Two adjacent cracks/ hollows exists on a mountain side
- The two hollows/ cracks are filled with ice
- The ice erodes the sides through plucking and deepens the hollow through abrasion
- Through erosion, the back walls of the hollows slowly recede
- Eventually the hollows/ ciques are separated by a knife- edged ridge
- The ridges called an arête (Any 4 x 1 = 4 mks)

(c) (i) Name the types of moraines marked S, T and V

S - Medial (1 mk)

T - Lateral (1 mk)

V - Terminal (1mk)

(ii) Explain four positive effects of glaciations in lowland area

- Glacial till provides fertile soils for arable farming

.

-
- Ice sheets, in their scouring effect reduce the land surface and depth to expose mineral seams which become easy to extract
- Outwash plains comprises of sands and gravel which are used as materials for building and construction
- Lakes formed though glaciation can be exploited for various economic uses such as fishing, transportation or as tourist attraction.
- Ice melts into rivers exploited for domestic use
- Glaciated features are tourists attractions
- Glaciated lowlands are generally flat due to erosion and deposition and are ideal for construction of buildings and communication lines (Any 4 x 2 = 8 mks)

(a) (i) Name the vegetation zones marked

W	-	Rain forest	(1mk)
X	-	Bamboo forest	(1 mk)
Y	-	Health and moorland	(1 mk)

(ii) Describe the characteristics of the Savannah vegetation

- Savannah vegetation consist of trees and grass

  Wetter areas/ near the forests the vegetation consists of tall scattered trees similar to those found in the forest/ woodland
- The wetter areas also have fall thick grass
- Gradually, away from the forest, the trees become fewer and shorter
- The grass also becomes shorter
- In drier areas the trees are short and more scattered
- Some trees are deciduous type
- Most of the trees are umbrella- shaped
- The most common trees species are the acacia and other thorny trees.
- Where rainfalls is lowest, grass is tufted and coarse/ scrub
- There are scattered baobab trees and other drought resistant trees

.

-
- Along river valleys there are tall trees/ riverine trees and thick bushes (any 6 x 1 = 6 mks)

(iii) Name the temperate grasslands found in the following countries

- Canada - Prairies (1 mk)
- Russia - Steppes (1mk)
- Australia - Downs (1 mk)

(b) Explain the causes of the decline of the areas under forests in Kenya

- Fire; often areas of forests are destroyed by accidental and sometimes intended fire. Such forests take long to recover
- Diseases caused by pests and parasites attack mainly the planted forests causing many trees to die
- Human activities/ settlements/ charcoal burning/ farming/ logging have destroyed many forest areas many of which are transformed into farms or grasslands
- Over – exploitation leads to depletion of certain tree species such as Meru, Ork, Camphor and Elgon teak. These trees take long to mature.
- Government policy of degazetting of some forests made people free to clear many forested areas.
- Prolonged droughts lead to degeneration of forests some of which take long to recover (Any 3 x 2 = 6 mks)

(c) (i) state three reasons why it would be necessary for you to visit the area before the day of the study

- To familiarize in order to design the appropriate research method
- To prepare the working schedule
- To be able to formulate the appropriate objectives and hypothesis
- To be able to identify relevant equipment for data collection
- To identify suitable areas for study to meet the people who will provide information during the study
- To seek permission from the owners of the land/ authorities

.

(ii) Give four uses of vegetation you are likely to identify during the study.

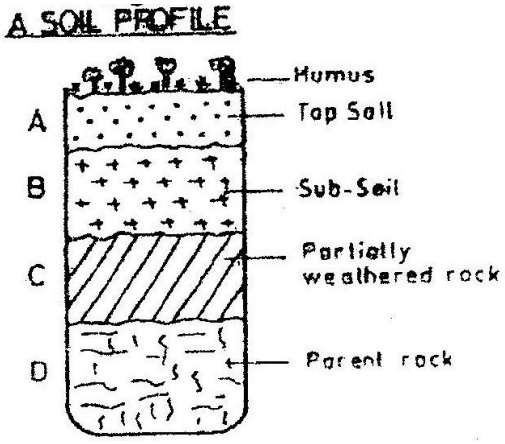
- Use as fodder
- Use for providing fruits/ roots/ vegetables/ food e.g. fruit
- Providing wood fuel/ charcoal wood
- Controlling soil erosion/ protecting catchments areas
- Use for ornamental/ Beauty/ aesthetics
- For cultural / rituals/ worship
- Production of building/ construction materials/ timber

(Any 4 x 1 = 4 mks)

10. (a) (i) What is soil catena?

Soil catena is the sequence of different soils from the same parent rock on a slope (2 mks)

(ii) Draw a labeled diagram to show a well developed soil profile



(iii) State three characteristics of soils found in the arid regions of Kenya

- The soils are light in colour
- They are saline
- They are sandy/ stony
- They are loose in texture
- They are thin
- They have low moisture content (Any 3 x 1 = 3 mks)

.

(b) Give three factors that determine the colour of soil

- The type of parent rock
- The amount of organic matter/ humus
- The chemical composition/ the degree of concentration of iron oxides/minerals
- The amount of water in the soil/ the drainage of the soil

(any 3 x 1 = 3 mks)

(c) Describe how laterization occurs

- During the season, mineral salts in the top layer of the soil dissolve in rain water
- The dissolved minerals percolate/ steep downwards from the top soil to the sub- soil (Silica and bases)
- The dissolved minerals move/ are deposited further downwards to the lower layer
- Insoluble minerals such as iron and aluminium accumulate on the top layer to forma a crust of laterites (Any 3 x 2 = 6 mks)

(d) Explain how the following farming practices causes soil erosion

(i) Burning

- Burning destroys micro- organisms which are essential for the formation of humus which binds soil particles together
- Burning destroys vegetable matter that protects the soil against erosion/ form humus hence less protection
- Burning destroys the nitrogen fixing bacteria making the soil less fertile and therefore few plants and less protection of the soil
- Burning loosens the soil making it susceptible to erosion/ leaching which drains away soluble minerals nutrients (Any 2 x 1 = 2 mks)

(ii) Continuous application of fertilizer on farm lands

- This increase the acidity of the soil/ changes the pH of the soil. The acidity destroys the micro- organisms in the soil / fungi/ bacteria which could have helped in the formation of humus/ leaf binds soil particles
- Acidic soils are unsuitable for a variety of crops which would protect the soil from erosion

.

(iii) Monoculture

- Monoculture leads to exhaustion of certain minerals from the soil making it infertile and bare leading to its erosion
- Monoculture leads to loosening of soils particles thereby encouraging soil erosion (Any 1 x 2 = 2 mks)

GEOGRAPHY 2006 PAPER 2 (312/2)
MARKING SCHEME
SECTION A

(a) Differentiate between transport and communication

Transport is the movement of goods and people from one place to another while communication is the transmission of ideas of information from one person to another. (2mks)

(b) State the causes of the decline in the use of letter writing as a means of communication in Kenya

- The high rate cost of postage
- Competition from cheaper and faster means of communication
- The delay in the delivery of letters
- Loss of letters
- Tampering with letters (Any 3 x 1 = 3 mks)

2. (a) Give two methods used to reclaim land in Kenya

- Irrigating dry land
- Draining of swamps
- Adding manure to the infertile soils
- Introducing drought resistant crops
- Planting of trees (any 2 x 1 = 2 mks)

(c) Outline the stages though which land is reclaimed from the sea in the Netherlands

.

- Part of the low lying land covered by sea water is enclosed using strong walls/dykes
- Ditches are constructed to lead water to pumping station
- The water is pumped out using windmills
- Canals are then dug to drain the excess water from the enclosed land
- Chemicals are added to the soil to reduce salinity/ fresh water is pumped into the enclosed land to reduce salinity
- Oats, rye and sugar beets are planted to improve the PH of the soil and reduce the water further
- The land is dry and ready for use *(any 3 x1 = 3 mks)*

3. (a) Which province had the highest change in population between years 2000 and 2005?

Rift valley (2 mks)

(b) Calculate the percentage increase in population in Kenya between years 2000 and 2005

10.795% (2 mks)

4. (a) State three physical conditions that are necessary for the growing of cocoa High temperatures / 25.30^0C

High rainfall / 1,200 – 1,500mm
Well distributed rainfall throughout the year
Deep, well drained, fertile soils
High relative humidity
Shade from strong sun rays for seedlings
Shelter from strong hamattan winds
Undulating lowlands below 750m above sea level*(Any 3x1=3mks)*

(b) List three economic problems experienced in cocoa farming in Ghana

Fluctuation of prices in the world market
Competition from other land uses
Inadequate labour during harvesting
High production costs
Competition from other beverages (Any 3 x 1 = 3mks)

.

5. (a) State two reasons why some industries are located near the sources of raw Materials

The raw materials may be too bulky and thus expensive to transport

Some raw materials are perishable so they have to be processed before transportation

Processing reduces transport costs (any 2 x 1 = 2 mks)

(b) Give three characteristics of the cottage industry in India

They rely on simple equipment/ machines

They are labour intensive

They are owned by families

They use locally available raw materials

They produce mainly for local markets

They are widespread in the country (Any 3 x 1 = 3 mks)

SECTION B

6. (a) (i) What was the percentage value of the tea exported in the year 2000?

29.3% (29 – 29.5%) (2mks)

(ii) What was the difference in the percentage values of the horticultural products and coffee exports in 1999?

5% (4.8 – 5.2%) (2 mks)

(iii) Describe the trend of the value of coffee exports from years 1999 to 2003

The value was generally declining over the five year period

The value was highest in 1999

The decline between 1999 and 2000 was minimal

The highest drop was between 2000 and 2001

There was a minimal drop between 2002 and 2003

(Any 3 x 1 = 3 mks)

(iv) Explain three factors which may have led to the increased export earnings from horticultural produce in Kenya between years 1999 and 2003

Improved technology which leads to advanced crop[husbandry, increasing the volume of fresh horticultural products

.

Aggressive promotion of trade abroad leading to a wide/ ready market in foreign countries

Improved ways of packaging have made the produce more competitive

Improved infrastructure/ air/ road transport have helped in the quick means of transportation of fresh produce to the market

The decline benefits from traditional agricultural exports leading to the expansion of the areas under horticultural crops

The government has encouraged the formation of organizations that are assisting horticultural farmers (Any 3 x 2 = 6 mks)

(v) Give three advantages of using simple line graphs to represent data

They give clear visual impression

They are easy to construct

They are easy to interpret

They can be used to represent a wide variety of variables

They are appropriate for comparison *(Any 3 x 1 = 3 mks)*

(b) Give four reasons why Kenya's agricultural export earning generally are low

Kenya sells most of her agricultural products in their raw form and these are priced lowly

International prices keep fluctuation from year to year

Prices of some commodities are externally determined

There is competition from other producing countries/ from other similar products

Some products are inferior in quality

There are fixed quarters for some agricultural products (Any 4x1=4mks)

(c) State five reasons why the common market for eastern and southern Africa (COMESA) was formed

To encourage member countries to reduce duties charged on good entering their countries from COMESA member states

To promote trade among member states

To acquire greater economic strength/ higher bargaining power with other trading blocs of the world

To establish a larger market for the goods produced in the region

To remove trade barriers among member state/ create similar trade laws

.

To create regional specialization in order to improve the quality of goods

To create political cooperation among member states

To create monetary and financial co- operation among members states (Any 5 x 1 = 5 mks)

7. (a) (i) Name the national parks marked P,Q and R

P - Ruwenzori (1mk)

Q - Serengeti (1 mk)

R - Tsavo (1 mk)

(ii) Explain the differences between the tourist attractions in East Africa and Switzerland under the following sub- headings

Climate

While the climate of East Africa is warm and sunny most of the year, encouraging sun bathing in Switzerland there are cold winters which enable winter sports and hot summers that expose beautiful sceneries (2mks)

Culture

In East Africa, there are varied/ a diversity of African cultures while in Switzerland the main culture is European (2mks)

(b) Explain five benefits that Kenya derives from tourism

Development of tourists facilities provide employment opportunities, thus reducing unemployment and raising the standards of living.

Tourists pay for the variety of services offered from which Kenya gains foreign exchange revenue

Tourists provide a ready market for trade items such as handcrafts and other curios.

The need for more agricultural products for tourists in hotels and lodges has stimulated the growth of agriculture and other related industries

The need for improved transport and communication has let to the promotion of infrastructure of tourist sites which also benefits the local people

Establishment of national parks and museums as tourist attractions has enabled Kenya to protect/ preserve its rich cultural heritage

Tourism encourages cultural exchange which promotes international understanding (any 5 x 2 = 10 mks)

.

(c) Explain four measures that Kenya should take in order to attract more tourists

Improving infrastructure/ roads/ airports/ communications to all tourists-sites in order to make them easily accessible.

Improving security to ensure the safety of the tourists is guaranteed

Marketing the country more aggressively in order to make it more known/ improve the image of the country abroad

Establishing a diversity of tourists attractions to avoid depending entirely on the traditional attractions and reduce competition with other tourists destinations

Establishing/ modernizing tourist facilities in areas that have high potential such as western Kenya where such facilities are inadequate.

Intensify domestic marketing to reduce reliance on foreign tourists.

(Any 4 x 2 = 8 mks)

8. (a) (i) Name the zones marked X and Y

X- Industrial zone/ lower class housing (1 mk)

Y- Suburb area (1 mk)

(ii) List three functions of the central business District

Trading

Administration

Recreation

Commerce/ banking/ insurance

Offices

Location of light industries (Any 3 x 1 = 3 mks)

(iii) State two ways in which the residents of the zone labeled agriculture land benefit from the urban centre

They have easy access to social amenities such as medical and educational facilities

They have ready market for their farm produce

The working class can commute to and from the centre of work while living in cheaper houses

They have better chances of job opportunities than those living far away from the centre

They enjoy cheaper goods and services from the centre due to closeness to the town *(any 2 x 1 = 2 mks)*

.

(b) List four factors that contribute to the emergence of slums in urban areas in Kenya

Low income due to unemployment . underemployment

Shortage of proper houses]

Inadequate financial ability

High cost of land/ houses in others parts of the towns

Poor urban planning

High rates of migration into urban centers (any 4 x 1 = 4mks)

(c) Explain the measures that could be taken to control the following problems in urban centers in Kenya

(i) High rate of crime

Encouraging community policing to complement the effort of the police force

Controlling the influx of illegal arms in order to reduce the incidents of thuggery

Enforcing laws without favour to provide protection to the law abiding citizens

Getting rid of street families to reduce the number of idlers in the towns *(any 1 x 2 = 2 mks)*

(ii) Water pollution

Educating the residents on the appropriate ways of refuse disposal to avoid polluting water resources

Enacting and enforcing laws on environment management/ charging those found contravening the laws *(Any 1 x 2 = 2 mks)*

(d) Explain five factors that led to the growth of Kisumu town

Its location at the shores of Lake Victoria led to its growth as a lake port handling trade among the three East African countries

In 1901 Kisumu became a terminus for the Uganda railway allowing the influx and settlement of early Asian traders. This led to commercial development of the town

Kisumu was a regional Asian traders. This led to commercial development of the town

Kisumu was a regional administrative centre during the colonial period

This led to setting up of administrative offices and other infrastructural facilities.

.

The rich hinterland with mineral and agricultural resources provided raw materials for the development of industries and food supply for the town residents

The high population in the surrounding areas provided the required labour force for the development of industries

The nearby rivers and lake Victoria provided fresh water for the industrial and domestic use.

The well developed means of transport/ road/ railway/ airport makes the town easily accessible from other parts of the country. (Any 5 x 2 = 10 mks)

9. (a) (i) Name the power dams marked J,K and L

J - Aswan high dam (1 mk)

K - Akosombo dam (1mk)

L - Kariba dam (1mk)

(ii) Explain four ways in which Kenya has benefited from the development of the seven forks hydro- electric power scheme

It has led to control of floods in the lower parts of river Tana, thus reducing the incidents of loss of life and farm produce in the area.

The dams are used for generating electricity which is used for industrial and domestic purposes

The dams are tourists attractions which generates foreign exchange for the country

The scheme led to the development of industries thus creating employment opportunities

Some of the dams in the scheme provide water for irrigation thus improving agricultural production

The reservoirs provide fishing grounds which supply fish to the local people

It has led to the improvement of roads making the area more accessible

It has led to the reduction of importation of power, thus saving the foreign exchange

The dams have provided useful sites for educational purposes

(Any 4 x 2 = 8 mks)

(b) (i) Apart from oil, name two other non- renewable sources of energy

Coal

Uranium

.

Natural gas (Any 2 x 1 = 2mks)

(ii) Explain four effects that the increase in oil prices had on the economies of oil – importing countries of Africa

The countries spend more of their foreign exchange on importation of oil, thus negatively affecting other sectors of their economies

There has been increasing cost of transport causing a rise in the cost of movement of both people, goods and services

Production costs have increased leading to an increase in prices of commodities thus reducing the demand on the commodities

Some industries rely on by- products of petroleum have collapsed leading to redundancy and unemployment

The countries have experienced low economic growth leading to general poverty among the citizens

It has led to the need to establish/ look for cheaper sources of energy to replace/ supplement the oil

It has created an awareness on the need to conserve energy

The countries that have oil potential have started exploring the possibilities of drilling their own oil to reduce/ stop importation.

(Any 4 x 2 = 8 mks)

(c) State four ways in which Kenya can reduce the use of petroleum as a source of energy

Encouraging people to use bicycles over short distances

Developing alternative sources of energy

Pooling transport/ encouraging people to use public transport]

Importing vehicles that consume less fuel

Improving traffic flow to reduce usage of petrol/ diesel

Improving the roads to avoid delays that increase consumption of petrol/ diesel

Proper maintenance of vehicles to avoid high consumption of petrol/ dieses *(Any 4 x 1 = 4 mks)*

10. (a) (i) Define the term fisheries

Fisheries are water bodies where exploitation of aquatic organisms is carried out. (2mks)

(ii) Name two countries in Southern Africa that are important for marine fish Production

South Africa

Angola

.

Namibia *(Any 2 x 1 = 2 mks)*

(b) Explain four factors that favour the fishing industry in Japan

The cool waters are ideal for fish breeding because of the abundant supply of plankton / fish food

The coast has many off- shore islands which provide sheltered inlets ideal for the establishment of fishing port/ villages

The intended coastline provides secure breeding grounds for fish

The meeting of the warm Kuro Siwo and the cold Siwo Ocean currents result in upwelling of the sea water thus bringing minerals for the planktons from the sea bed to the surface

The mountainous nature of the country restricts agricultural activities hence fishing is an alternative economic activity

Most settlements are found along the coast and main occupation of the people there is fishing

The Japanese have advanced technology that is used in fishing, processing and preservation of fish

Japan has a large population which provides ready local market for fish.

Japanese have a long history of sea faring thus are highly experienced in fishing

The shallow continental shelf allows light to the sea bed for growth of micro- organisms which are food for fish

The cool waters encourages thriving of numerous species of aquatic life. (Any 4 x 2 = 8 mks)

(c) Describe purse seining as a method of fishing

It uses two boats, one large and one small

It uses a large net

The net has floats on top and weights at the bottom to keep it in a vertical position while in water

The net has a string along its bottom edge

The fishermen begin by locating a shoal/ area rich in fish

The small boat drags the net to enclose the area that has fish

The string at the bottom of the net is pulled to close the net at the bottom and trap the fish

The net is pulled out of the water and fish hauled into the large boat for preservation and transportation to the shore.

(Any 6 x 1 = 6 mks)

(d) (i) State four problems experienced in the marketing of fish in Kenya

.

Some fishing areas are far from the markets and roads are in poor condition thus fish goes bad enroute

Fishermen lack appropriate storage and preservation facilities

There are limited local markets due to cultural beliefs

The external markets are limited by tight restrictions/ competition from other producers

The limited number of fish species limits the market

(Any 4 x 1 = 4 mks)

(ii) State three ways in which the Kenya government is promoting fishing industry in the country

Fishermen are given loans

Fishermen are encouraged to form cooperatives

Research is carried out/ the over – fished are re- stocked with fingerlings

There is standardization of the size of nets used in fishing

There is restriction of fishing from some specific parts of the sea where fish breeds

Laws have been enacted against water pollution to protect fish

Clearing of water hyacinth from the fresh water fisheries

(Any 3 x 1 = 3 mks)

K.C.S.E 2007 GEOGRAPHY PAPER 1
MARKING SCHEMES
SECTION A

1. a) State two effects of the rotation of the earth. (2mks)

- causes day and night
- Causes the deflation of winds and ocean currents.
- Causes the difference of an hour between two longitudes.

(Any 2x1)

b) Study the diagram below and answer the questions that follow

i) Which movement of the earth represented by the diagram? (1mks)

ii) Give two effects of the movement represented by the diagram (2mks)

- creation of seasons
- Causes varying lengths of day and night of different year.

.

- Causes changes in the altitude of the mid-day sun at different seasons - Causes lunar eclipse

2 a) name two types of coastal deltas (2mks)

- Arcuate delta
- Birds foot delta
- Estuary/estuaries (2x1)

b) State two conditions that lead to deposition of silt at the mouth of a river. (2mks)

- Overloading
- Loss of velocity
- Freezing of the stream
- Slow moving bodies of water
- Decrease of stream volume
- Reduction of stream gradient
- Present of barriers (Any 2x1)

3. The diagram below represents a barchan. Use it to answer question (a).

a) Name

i) The features marked x (1mk) - horns

ii) The air current marked Y. (1mk)

-eddy currents

iii) the slope marked z. (1mk)

-steep concave leeward slope

b) Give two ways in which wind transports its load

-suspension

-saltation

-surface creep (Any 2x1)

4. The diagram below represents the structure of the earth. Use it to answer questions (a).

a) Name

i) The parts marked P and Q (2mks)

p- hydrosphere

Q- Core

ii) The discontinuity marked r. (1mk)

Gutenberg discontinuity (1mk)

b) State three characteristics of the mantle. (3mks)

-It's made up of liquid rock.

-It has very high temperature

.

-It has a light density

5 a) Name the two major types of earth movements that occur within the eath's crust (2mks)

- Horizontal earth movement/ original/lateral
- Vertical earth movement/epeirogenesis

b) Describe the origin of the continents according to the theory of Continental drift.

-there was one land mass called pangea.

-surrounded by an enormous sea called pantalassa. The Norther hemisphere was called laurasia and southern Godwana land

- Due to crustal forces led pangea to break into the present six continents drifting apart (Any 6x ½)

SECTION B

6. Study the map in Taita Hills (1:50,000) sheet 189/4 provided and answer the following questions.

a) i) What is the bearing of peak of mwatunga hill in grid square 3214 from the water tank in grid square 2619? (2mks)

- 135^0

ii) What is the length in kilometers of the section of the Mwatate-voi railway line in the south-eastern part of the map (2mks)

b) Draw a rectangle measuring 16cm by 12cm represent the area enclosed by the Easting 24 and 40 and Northings 20 and 30. (2mks)

on the rectangle, mark and name the following features:

-Mgange hill (1mk)

-A rock out crop (1mk)

-All weather road, bound surface (1mk)

-River Ruhia (1mk)

-ronge forest (1mk)

c) using evidence from the map, explain three factors that may have favoured the establishment of the Teita sisal estates in the southern part of the area covered by the map. (6mks)

-Railway transport-provide transport

-Goods road network

-availability of labour from the settlement

.

-Gentle slope

-sparse population

-Low altitude

-cattle rearing –cattle dips

d) i) Describe settlement in the area covered by the map (5mks)

- Dense settlement along transport route.

-Dense settlement close to Teita sisal estates

-Scattered settlement on the s.E part/on the lower altitude part.

No settlement on the slopping areas

No settlement on the rock out crops.

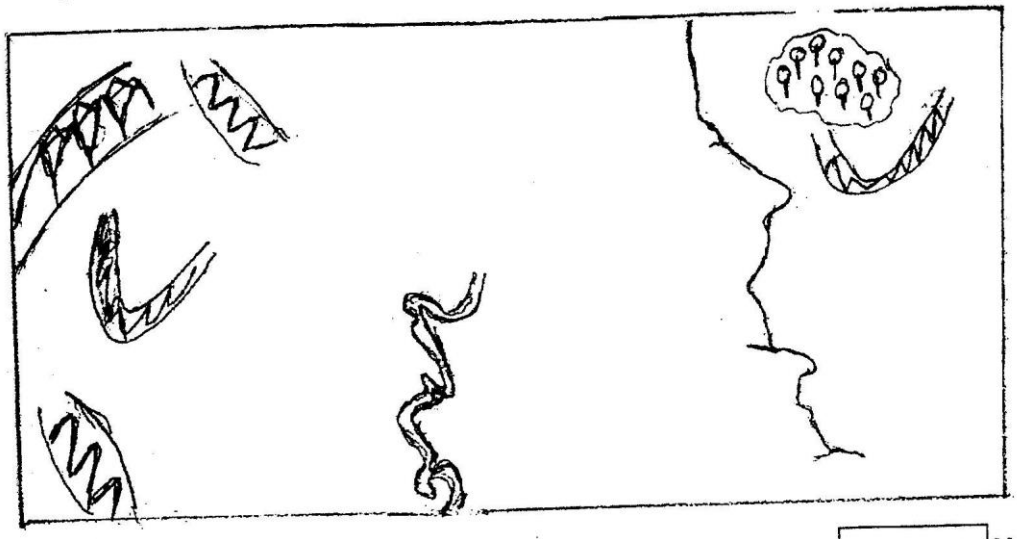
ii) citing evidence from the map, give two economic activities carried out in the area covered by the map other than sisal farming. (4mks)

- Trading –shops
- Transport-roads and railway
- Mining-quarry
- Lumbering animals –national parks

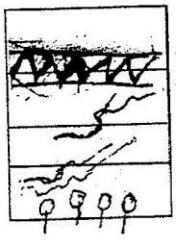
.

6 b) Draw a rectangle measuring 16cm by 12cm to represent the area enclosed by the Eastings 24 and 40 Northings 20 and 30. (1mk)

7a)



KEY

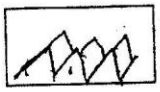


A rock out crop

River Ruhia

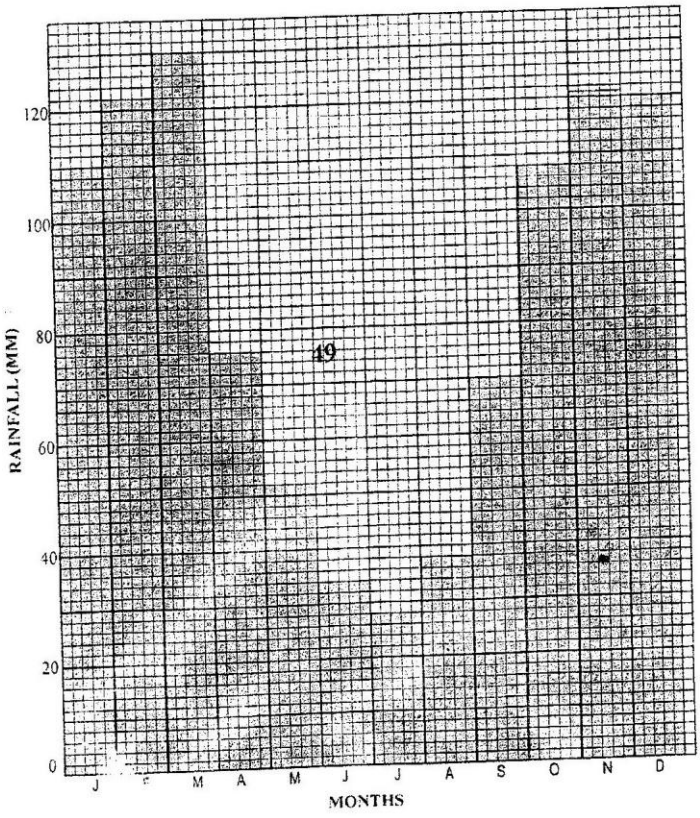
All weather road, bound surface

Ronge forest



Ngange hills

8.b) i)



.

Describe the following characteristics of minerals:

(i) colour (2mks)

-All minerals have their specific characteristics colour. Some change colour when exposed e.g gold is yellow, copper oxides are blue or green e.t.c

(ii) Cleavage (2mks)

- Minerals have distinct cleavages. They have patterns in which they split or divide e.g mica split into thin layers. Plant and glass has distinctive facture.

(iii) Hardness (2mks)

- Minerals differ in hardness depending on their chemical constituents and mode of formation. E.g Talc is soft, quartz is moderately hard and diamond is the hardest.

b) i) Give two types of igneous rocks (2mks)

-Intrusive/plutonic rocks

-Extrusive/hypabyssal rocks (2x1)

ii) Explain three conditions necessary for the growth of coral polyps. (6mks)

- Shallow water
- Well oxygenated
- Clear water i.e. silt free
- Warm water with temp 20^0C-29^0C (any 3x2)

c) **State four uses of rocks** (4mks)

- Valuable source of minerals like gold
- Store underground water i.e impermeable rocks - source of income and employment -tourist attraction sites.
- provide construction materials.
- Making of artifacts e.g soap stones

-Breakdodown into fertile soils (any 4x1)

d) You are planning to carry out a field study on the rock within your school environment.

Give two secondary sources of information you would use to prepare for the field study. (2mks)

-journals

-maps

-magazines

-Newspapers

.

-extracts downloaded from the internetr

-statistical abstaracts

-books

-periodicals

-Census reports (any 2x1)

ii) state why you would need the following items during the field study:

-a fork jembe (1mk)

Marble – metamorphic

Sand- stone-sedimentary

Granite- igneous (2mks)

8 a) i) What is climate? (2mks)

Is the average weather condition of a particular place for a long period of time between 3o -35 years.

ii) Explain two effects of climate change on the physical environment. (4mks)

-High rainfall results to flood that will a proof vegetation

-High temperature- results to dying of vegetation

-Ice will melt leaving the mountation tops bear

-soul erosion to drying vegetation (any 2x2)

b) The table below shows rainfall and temperature figure of a station in Africa.

Months	J	F	M	A	M	J	J	A	S	O	N	D
Temp. in ^{0}C	24	24	23	22	19	17	17	18	19	20	22	23
Rainfall in mm	109		122	130	76	52	34	28	38	70	108	121
			120									

(i) On the graph paper provided draw a bar graph to represent the rainfall figures. (Use a vertical scale of 1 cm to represent 10 mm) (5 mks)

(ii) **Describe the rainfall pattern of the station** (4 mks) - It receives high rainfall January to March and October

- Rainfall decreases from April to June then it increases from July to December

.

- It receives the maximum rainfall in march 130mm
- The lowest rainfall is received in the month of June 28mm
- The rainfall decreases with the decrease of temperature and increase with the increase in temperature. (Any 4 x 1)

(iii) **Calculate the average monthly temperature for the station**
(Show your calculations) (2 mks)

24 + 24+ 23+22 +19 + 17 + 17+ 18 +19 + 20 +22 +23

$= \frac{248}{12} = 20.66^0C / 20.67^0C / 21^0C$

(c) You are supposed to carry out a field study on the weather within your school compound

(i) Describe how you would use the following instruments during the filed study:

- **The Hygrometer** (3 mks)

The wet bulb thermometer is wrapped in wet muslin and dipped into water to keep the muslin moist. This record the lowest temperature as the water evaporates from the muslin.

Dry bulb thermometers is left in normal environmental to record the highest temperature. The difference between two readings is used to calculate the relative humidity.

- **The rain gauge** (3 mks)

Insert the beaker on the ground

Take the rain water collected in the jar or bottle

Pour the water in a measuring or graduated cylinder

Take the reading

Record the readings in a book or table

(ii) **State two ways in which the information collected during the filed study would be useful to the local community** (2 mks)

Know the type of crops to plant

Know the type of animals breeds to rear

Know the type of attire to wear

Know the wind control measures (any 2 x 1 = 2 mks)

9. (a) **Give three processes that lead to formation of lakes** (3mks)

Down warping/ tilting

Tectonic movements

.

Man- made lakes
Lava dammed lakes
Glacial erosion lakes
Maraine dammed lakes (any 3 x 1 = 3 mks)

(b) (i) **Describe how lake Victoria was formed** (4 mks)
Formed when the earths surface downwarped and tilted forming a hollow depression that was fitted with water.

(ii) **Explain how lake Victoria influences the climate of the surrounding areas** (6 mks)

Heavy rainfall due to moisture from the lake
High temperature due to low altitude caused by the depression
Availability of water has attracted the industrial set up that pollute the environment

(c) (i) Apart from Lake Magadi, name two other lakes within the rift valley in Kenya that have a high level of salinity (2 mks)

L. Natron
L. Bogoria
L. Elementaita

(ii) **Explain three causes of salinity in Lake Magadi** (6 mks)

- Lack of underground outlet
- Acidic volcanic rock layer on the lake bed
- Lack of surface outlet
- River entering the lake flowing on acidic rocks

(d) **Give four economic uses of lakes other than mining** (4 mks)

- Source of fish
- Irrigation
- H.E.P production
- Source of river
- Tourists attraction

10. (a) (i) What is the difference between weathering and mass wasting?(2 mks)
Weathering – is the breaking down and decomposition of solid rocks on the earth though physical and chemical processes without movement. **Mass**

.

wasting- down slope movement of the weathered material by the aid of gravity.

(ii) Apart from plants. Give three other factors that influence the rate of weathering (3 mks)

- Water
- Heat/ temperature
- Chemicals/ dissolved substances

(iii) Explain two ways in which plants cause weathering (3 mks)

- Plants roots e.g. trees grows into joints and cracks, they widen the joints and cracks as they grow causing rock blocks to disintegrated.
- Plants like algae, mosses and lichen retain water on rocks resulting to chemical weathering processes
- Decaying plant material produce organic acids. That reacts with some of the rock minerals causing it to decay.

(c) (i) List two types of mass wasting other than soil creep (2mks)

- Talus creep/ scree creep
- Solifluction

(ii) **Explain three factors that causes soil creep** (6 mks)

- Heating and cooling of soil
- Freezing of soil
- Ploughing down hill
- Shaking by earth quakes/ heavy tracks
- Alternate drying and wetting of the soil
- Trampling and burrowing of the ground

(d) **Explain four effects of mass wasting on the environment** (8 mks) - Leads to loss of fertile soil

- Leads to loss of life and property
- It may block the river or stream
- Leads to displacement of people
- It may lead to destruction of infrastructure and buildings
- It may lead to formation of lakes

.

K.C.S.E 2007 K.N.E.C. GEOGRAPHY PAPER 2
MARKING SCHEME

1a) Name two exotic breeds of dairy cattle reared in Kenya

Fresian / Hoisten

Ayshire

Guernsey

Jersey

Alderney

Brown Swiss / Swiss Brown

b) State three physical conditions that favour dairy farming in Denmark

The landscape is gently sloping which is suitable for grazing

The climate has warm / sunny summer / moderate temperature (10^o – 17^oC) that allow out door grazing.

There is cool climate suitable for pasture growing

The moderate rainfall (500 – 1000mm) that supports growth of grass / fodder crops

Boulder clay soil are fertile support high pasture

NB if one writes moderate rainfall of 11000mm – its wrong

2a) State two climatic conditions that favour the growing of oil palm in Nigeria.

- High temperature throughout the year (21^oC – 30^oC)
- High rainfall 1500 – 2000mm evenly distributed throughout the year
- High relative humidity 80% to 90%
- Plenty of sunshine during the ripening season.

b) Give two problems experienced in the marketing of palm oil in Nigeria.

- Competition from other vegetable oil
- Poor road network / impassable roads.
- Production of low quality oil
- Reduced production which has lowered the amount of oil expored.

3. The table below shows petroleum production in thousand barrels per day for countries in the middle East in April 2000. Use it to answer question(a)

Country	Production in '000' barrels
Iran	3,800
Kuwait	2,550
Qatar	800
Saudi Arabia	9,600
	2,500

.

United Arap Emirates Iraq.	1,900

a)i) What is the difference in production between the highest and the lowest producer?
8,800 , 000 barrels

ii) What is the total amount of petroleum produced in April 2006 in the region?

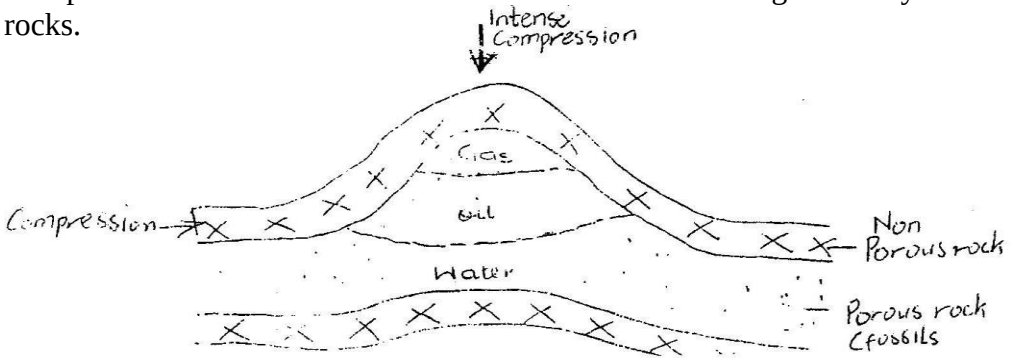
634,500,000 barrels (2.55×10^8) iii) Calculate the average daily petroleum production for Kuwait for April 2006.

2,550,000 barrels (6.34×10^6)

b) State three conditions that are necessary for the formation of petroleum.
Deposition / presence of florescent and trauna over a long period of time / fossils presence of presence of porous rocksks / presence of non porous underneath in the deposits of the flora and trauna.

Deposition of other layers of rocks / non porous / over the remains of flora and fauna

Compression of the remains of flora and fauna due to folding of the layers of rocks.



4. Below is a sketch map showing part of the great lakes and st. Lawrence sea way. Use it to answer questions(a)

See map on the questions paper

Name

i) The port marked p.

Quebec

ii) The canal marked Q

New York State Barge Canal. Erie Canal

iii) The lake marked B

Lake Ontario

.

b) State three ways in which the Great Lakes and st. Lawrence sea way has contributed to the growth of industries in the region.

- It has increased (internal and external) trade
- It has facilitated the transportation of bulky products
- It has reduced the cost of transportation of bulky products
- The dams along the sea way provide HEP for industrial use
- It has led to the development of lake ports and towns which provide market / labour / housing facilities.

5a) A part from HIV and AIDS, give two other causes of mortality in East Africa

Natural calamities

Low nutritional standards/ famine

Conflicts / wars

Other epidemics / disease

Inadequate medical facilities / poor medical facilities

Road carnage

b) State two ways in which the spread of HIV and AID in Kenya may slow down economics development.

-The sickness leads to absenteeism form work/ reduced pro

- Money spent in treating the sick could be used for other economic activities
- Death resulting from disease leads to loss of economically productive population.
- Care takers at family level use more time caring for the sick / orphans instead of engaging in economic activities / high dependency ratio.

6. The photographic below / provided shows a tea growing area in Kenya. Use to answer questions a and b.

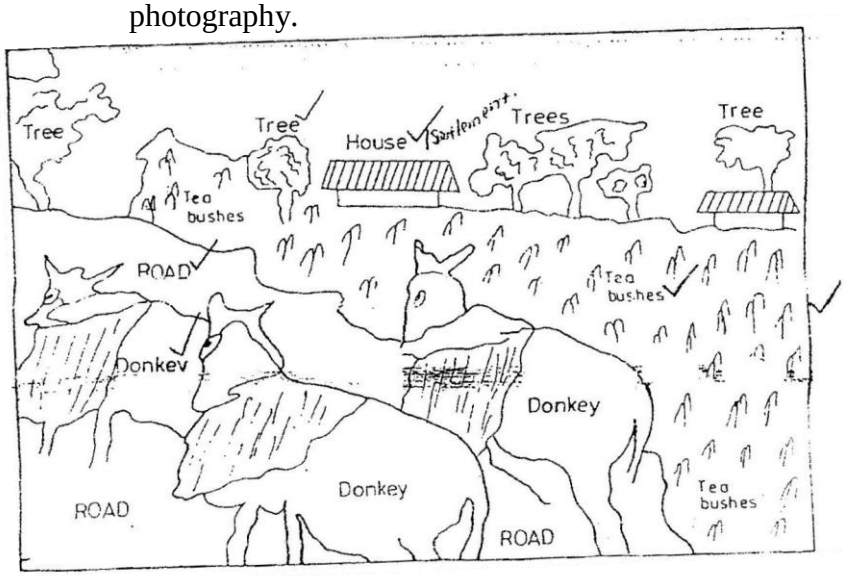
a) What evidence in the photograph shows that this is a ground general

- View type of photograph
- It focuses on all / many objects

The object becomes progressively smaller towards the background
It captures the general appearance of the area.

.

ii) Draw a rectangle measuring 15cm by 10cm to represent the area of the photograph. On it sketch and label the main features shown on the photography.



Rectangle 1 mark
donkeys 1 mark
Road 1 mark
Trees 1 mark
Tea bushes 1 mark
House 1 mark
total max (5 mks)

NB: If rectangle is disoriented, award one mark only, mark the rectangle and not the features.

iii) Identify two features from photograph that shows that this is a small scale tea farm.

- The type of simple houses / houses within the farm.
- The mode of transport by using donkeys
- Houses within the farm
- Untrimmed edges of tea bushes
- Dry maize stalks near the houses.

b) Describe the stages involved in the cultivation of tea from land preparation to the stage shown on the photograph.

- The land is cleared of vegetation
- Land is ploughed / tittles
- Seedling / cutting are planted in nursery and allowed to grow to 20cm – 30cm.
- Seedlings are transplanted on to the cleared land at the beginning of the rainy season / in rows. Which are about 1.5metres apart.
- The plants are weeded / manure / mulching applied regular.
- Once the bushes start growing, the tips of their branches are pruned /pegging regular to encourage the plant to form more branches. - After 11/2-4 years the crops is ready for harvesting (18 – 48 months) - The crop is harvested every two weeks once it attains maturity.

.

- After harvesting, the green tea leaves are transported to the collection centre within 24 hours.

NB : Sequence is necessary

C)i) Name two districts in Eastern province where tea is grown

Embu

Meru North/ Nyambene / Tigania / igembe

Meru south

Meru Central / Iment south / Imenti North ii) Explain four ways in which the Kenya Tea Development Agency (KTDA) assists small scale tea farmers in Kenya.

It established tea nurseries from where tea farmers buy tea seedlings

It organizes farmers education days / provide extension services for the farmers to learn new ideas about tea growing.

It buys farm inputs in bulks and sells to the farmers at low prices.

It provides credit facilities to the farmers to enable them purchase farm inputs

It collects the green tea on behalf of the farmers.

It establishes factories where the green tea leaves are processed.

It undertakes the marketing of tea on behalf of the farmers.

It improves feeders roads to improve the transport of green leaves.

Conducts research on disease / pests /improved tea for higher yields / better quality tea.

7.a) Name three agricultural food processing industries in Kenya

- Tea processing
- Coffee processing
- Milk processing
- Sugar refining

-Fruit canning / fruit processing

- Brewing
- Bakering

-Graining milling

-Meat canning / meat processing

- Oil pressing / processing

-Vegetable canning/ processing.

b) Expain how the following factors have favourable the development of industries in Thika town

i)Proximity

Nairobi provides some inputs required by the industries in Thika

There is industrial interdependent among the industries in Nairobi

.

and Thika.

The short rail and road connection between Nairobi and Thika provided cheaper movement of goods and services for the industries in Thika.

Nairobi provides a ready / large market for the manufactured goods from Thika

ii)Availability of water

River chania which passes through Think town provides fresh water for industrial use especially for coffee processing and fruit canning measures.

iii) The hinterland

Thika town has rich agricultural hinterland which provides raw materials for the industries.

The hinterland is densely populated hence provides cheap labour for the industries. c) Explain four ways in which Kenya has benefited from industrialization. - Kenya exports / taxes industrial goods, thus earning foreign exchange/ revenue which is then used to develop other sectors of the economy.

-It has created employment opportunities hence raising the standards of living of the people / reducing unemployment.

- It has led to the development of transport and communication network thus faciliting the development of other sectors of the economy.

-It has facilitated the establishment of social amenities in the area where industries are located.

- It has led to the acquisition of management / technical skill which are also used in other sectors of economy / enhancing the expansion of industries. - It has led to the diversification of the economy thus reducing reliance on the agricultural sector.

- It has led to the improvement in the balances of trade since there is added value to the export exchange.

-It has led to the growth / expansion of settlement / urban centre as labour migrates to the industrial centres.

-It has let to reduction of the importation of some industrial goods thus saving foreign exchange.

d) i) Name two towns in Kenya where motor vehicles assembling plants are located

Nairobi

Mombassa

Thika ii) Explain three factors which have favoured the development of acar manufacturing industry in Japan.

-The country has adequate capital to invest in the industry - Advanced technology / research has led to the efficient methods of production / high quality cars which are competitive in the world market. -Japan has highly skilled / industrious work for which enhances efficiency in production.

.

-Japan has many sea ports which markets the importation of raw materials / exportation of cars possible.

.

- The government policy / peace and stability has led to rapid development of the industry

Japan has highly developed hydro electric power projects which provide power needed for the industries

- The presence of large population/ high purchasing power provides a large local market for the cars
- The presence of large population / high purchasing power provides a large local market for the cars
- Japan's terrain is too lagged unsuitable for development of agriculture and thus industries / provide an alternative source of income to be used for buying and other requirements
- The strategic position of Japan in relation to other countries encourage trade thus promoting production of vehicles/ Japan is accessible from all direction through the se

  Factor – 1 mk Explanation – 1 mk (Explanation alone has no mark)

8. (a) (i) What is forestry

It is the science of planting, caring and using trees/ forests and their resources

It is the practice of managing and using trees/ forests associated resources

(ii) Explain three factors that favour the growth of natural forests on the slopes of Mt. Kenya.

- The area receives high rainfall 1000- 22000 mm throughout the year which encourages continuous growth of trees.
- The area has deep fertile volcanic soils that allow the roots to penetrate deep into the ground to support the trees
- The area has well drained soil thus there is no water logging which can choke plants and interfere with their growth
- The area has moderate cool condition/ climate are ideal for the growth of a variety of trees.
- The area is a gazeted forest reserve/ settlement and cultivation are prohibited hence allowing forests to grow without interference
- The steep slopes discourages human activities thus enabling forests to thrive well

  Explanation 1 mk Factor 1 mk

-

-

.

(iii) State five factors that have led to the reduction of the area under forests on the slopes of Mt Kenya

- The illegal encroachment of human activities
- The illegal cultivation has led to clearing of parts of the forest
- Prolonged droughts have caused drying of some forests
- Plant disease/ pests destroy some trees in the forest

Outbreak of forest fires/ charcoal burning destroy some trees in the forest

Over exploitation of certain species of trees.

(b) Explain four measures that the government of Kenya is taking to conserve in the country

Registering/ recognizing the efforts of NGOs like the green Belt Movement which have mounted campaigns on planting of trees

Gazeting forested areas to reduce encroachment of the public

Creating public awareness through mass media/ public bazaars on the importance of conserving forest resources

Enacting laws to prohibit the cutting of trees without a license/ protecting indigeous tree species

Establishing NEMA/ ministry of environment and natural resources to coordinate environmental management and conservation activities

Setting aside national tree planting day to encourage people to plant more trees
Advising people to practice agro- forestry so as to avoid cutting trees from the forests

Employing forest guards to protect forests form fires/ other illegal human activities

Encouraging recycling of paers/ wood based products/ use of other sources of energy to reduce demand of trees

Carrying out research through KEFRI and ICRAF in order to come up with ways of controlling diseases/ pests/ develop species suitable for different ecological regions

(c) Give the differences in the exploitation of softwood forests in Kenya and

Canada under the following sub- headings

(i) Period of harvesting

Transportation

Kenya	Canada
Period of harvesting is done throughout the year	Harvesting is in winter and

- - - -

.

Early spring

Transportation mainly road transport Mainly water transport

9. (a) (i) Name three international Airport in Kenya

Nairobi Jomo Kenyatta Airport

Mombasa Moi International Airport

Eldoret International Airport

(ii) Give four advantages of air transport over road transport

- Air transport is faster/ quicker response in case of emergency
- It is more efficient transporting perishable goods/ valuables / high value goods
- It experiences less traffic congestions

Helicopters can land in remote areas

Planes can be used for activities like spraying of farms

There are fewer accidents in air/ more safer

It is more comfortable

(b) Explain four measure that should be taken to improve road transport in Kenya - Construction of by passes/ sub ways/ tunnel/ flyovers/ under passes to reduce congestion of the large towns

- Construction of highways/ dual carriages road expansion to accommodate more traffic/ improve traffic flow
- Repair/ maintain the roads in goods state to reduce accidents/ improve traffic flow - Educate road users on road safety precautions/ discipline on roads to ease traffic on roads/ reduce road accidents
- Control the amount of load carried by large lorries/ trucks to reduce damage on road surface
- Enforce traffic rules to regulate traffic flow/ reduce road accidents

Provide paths for cyclists / pedestrians to reduce congestion on roads/ improve road safety

(c) Explain why there are few rail links among African countries

- Most of the existing rail lines were constructed by the colonialists who had no interests in linking the colonies
- The rail lines are of different gauges making it difficult for the countries too link them
- Political differences/political instability discourages attempts to link the lines

- - - -

.

- Inadequate capital limits the construction of new lines/ maintenance of railways - Large areas of the continents are economically unproductive thus it would be uneconomical to link railways

Difficult terrain/ thick forests makes it expensive to construct rail line

Limited trade links of production of similar commodities makes it unjustifiable to construct railway lines

- Competition from/ prevalence of other means of transport lead to neglect of railway transport.

(d) Give four reasons why there is limited use of river transport in Africa

- Some rivers have rapid/ water falls/ cataracts

Some rivers have seasonal regimes/ varying volumes

Some rivers have shallow water/ sited five mouths

Some have floating vegetation that choke the course

Some rivers have narrow channels unsuitable for sailing vessels

Some are short

Inadequate capital to develop waterways/ purchase vessels to develop ports

10. (a) (i) State two causes of water pollution

- Oil leaks from ships/ trucks
- Industrial effluent when discharged into rivers/ lakes
- Washing away (into rivers and lakes) chemical/ fertilizers/ pesticides/ insecticides

Washing/ bathing/ watering animals in rivers/ lakes

Disposing of raw sewages into rivers/ lakes

Surface turnoff/ soil erosion into water depositing silt

Dumping of solid waste into water courses

- - - -

.

(ii) Give two effects of water pollution on the courses

- It may cause death of aquatic life
- It destroys aesthetic/ beauty of beach/ water bodies
- It leads to spread of waterborne diseases
- Causes foul smell
- Results to sutrophictaion/ water hyacinth/ water weeds/ alga

(c) Explain four methods used to control floods in Kenya

- Dykes are constructed along river banks levee of rivers to increase their height in order to prevent water from over flowing

Dredging of river channels to deepen/ widen them to make it possible for them to accommodate excess water

- Dams are build across the rivers to control the amount of water discharges downstream/ construction of earth dams to hold back water
- Training/ re- directing a river/ straightening of a river to control its wild flow (training means cut meander loops
- Planting of trees in the catchment areas to reduce surface run off and increase infiltration
- Divering tributaries to other rivers to reduce the volume

(d) Explain how the following soil conservation methods are usded to improve the quality of soil.

i) Contour farming

- It helps to rap water hence improving soil moisture content
- It helps to reduce the speed of water down slope thus preventing the removal of top soil.

ii)Mulching

The mulch adds humus in the soil as it decomposes thus enriching the soil

- The enhances the rentention of water in the soil by protecting from direct sunlight / wind.
- It controls / stop run –off / speed of surface run – off by acting as acover to the soil
- It provides a suitable habitat for organism that aerate the soil by burrowing.

iii) Crop rotation

Since different crops utilize different mineral, rotation helps in balancing the mineral content in the soil.

- -

-

.

(e) You intent to carry out a held study on pollution in the local open air market

i) State three reasons why it would be necessary for you to visit the market before the actual field study.

- To get permission from the relevant authority
- To be able to formulate the objectives / hypothesis To familiarize with the area of study.

To be able to prepare a working schedule / to decide on the appropriate method of data collection.

To determine the respondents / resource persons

- To asses the likely problems to be encountered. - To determine the equipment /materials required.

ii) Give two methods that you would use to collect information on pollution.

-Interviewing

-Taking photographs / sketching / filming

-Observation

-Measuring the extent of polluted area

- Administering questionnaires -Tape recording / video taking / shooting

iii) Give two follow up activities you would carry out after the field study

- Discussing the findings
- Analyzing the data
- Writing a report
- Giving relevant advice to the stake holder
- Drawing sketches
- Displaying photographs / sketches.

.

ANSWERS TO GEOGRAPHY KCSE 2008 QUESTIONS

PAPER 1

SECTION A

1. a) Give three reasons why it is necessary to study the plate tectonics theory. - It explains the current position of the continents
   - It enables one to understand the creation of the structural land forms
   - It helps one to understand how the earth maintains balance/isostasy
   - It explains the cause of earth quakes/volcanicy

   b)
   - Divergence/extension/constructive - Convergence/compress ional/destructive - Transform /conservative. 2. a) P- Mercury

   Q- alcohol/oil of Cleo salt

   R- Metal index.

   b) i) The diurnal range of temperature for Tuesday; 27-18 =90^0C

   ii) The mean temperature for Saturday

   $\frac{29 + 21}{2}$ = 250C

3. a) -Coal
   -Petroleum
   -Diamond
   -carbon

   b) Because it is the hardest mineral/ it does not break easily

4. a) -Dust particles
   -Pollen grains
   -Gases
   -Salt particles/sodium chloride
   -Smoke Any 2x1 mks

   b) i) -Their height
   -Their shape/form
   -Appearance

   ii) -Cumulonimbus
   -Cumulus
   -Nimbostratus

5. a) V - The sun W - The moon b)

   The gradual emergence of a ship approaching the shore.

.

Circumnavigation of the earth along a straight path leads one to the starting point from the opposite direction.

The different times during which the sun rises and sets in different parts of the world.

The appearance of the middle pole to be relatively higher than other poles placed along a straight line on a level ground at equal distances. (curved)

The circular shape of the earth seen on photographs taken from satellites

The circular shadow cast by the earth during a lunar eclipse

The earth is a planet and all planets are sphere. Any 4x1 mks

SECTION B

6. a) i) -35^0 15' to 35^0 25'/ 10' ii) Map scale 1: $\frac{50{,}000}{100{,}000}$ km

= 0.5 km

Statement scale is 1cm represents o.5 km / ½ km

iii) Just over 2120 m and below 2140m

iv) 10.5 - 11.0 km^2

b) i)

- Scrub
- Woodland
- Scattered trees
- Thicket
- Papyrus/papyrus swamp vegetation Any 3x1 = 3mks ii) 305^0C (304^0 – 306^0) / N 55^0 (55^0- 56^0) iii) All weather loose surface iv) Dry weather road

v) Motorable tracks/main track vi) Foot paths /other tracks.

c)

- There are few settlements/labour lines within the tea estates and forested areas
- To the north and west of Kericho-Lumbwa road, the settlements form a dispersed pattern
- To the north of Tugenon river, there are few or no settlements
- There are nucleated settlements in the market/shopping centres/labour lines/villages
- Some areas with the steep slopes and river valleys have a few or no settlements

.

- Kericho town is the main settlement are/forms a large cluster of settlement
- Few settlement in the tea estate.

d)

- The high relief modifies temperatures making the area suitable for the growing of the area suitable for the growing of tea bushes.
- The relatively undulating slopes allow proper drainage of soils making it ideal for tea farming/allows mechanization
- Presence of forests/many permanent rivers show that the area receives high rainfall which is suitable for tea growing.
- The area has fairly dense settlements which indicates availability of labour needed in tea farming.
- The area is well served by all weather roads which are needed for the transportation of tea from the farms to the factory /transportation of labour

Any 3x2=6mks

7. a) Magma is the molten rock material which originates from the interior of earth, cools while below the earths surface (and has large crystals) while lava is the molten rock materials that has reached the surface. (Has solidified and has small crystals. (2mks)

b) E- Dyke F- Lapolith

G- Sill

c) i) A crater

- Eruption of lava through a central vent causes building up of a cone.
- The lava in the vent cools and contracts.
- The cool lava withdraws into the vent leaving a shallow depression of the cone
- Gas explosions may blow away surface rocks causing a crater

Examples

Mt Longonot

Menengai

Mt/suswa

Mt Marsabit

ii) A geyser

- Rainwater percolates down through cracks in the rocks.
- The water gets into contacts with hot igneous rocks
- The water gets into contacts with hot igneous rocks -
  The water is super heated and gases/steam form -
  Pressure builds up in the cracks.
- The pressure causes steam and water to be ejected explosively as jet to the surface intermittently.

.

- The water and steam are emitted intermittently as pressure level changes.

Example – Lake Bogoria iii)
A lava plateau

- It is formed when magma reaches the surface of the earth through a series of vents/fissures
- The lava is extremely fluid/ultra-basic
- The lava spreads evenly over a large area
- The lava cools slowly and solidifies

Example

Yatta plateau

Uasin Gishu plateau

Laikipia plateau

d)

- Volcanic highlands/mountains are sources of rivers which provide water for domestic/agriculture/industrial use.
- Volcanic rocks weather down to form fertile volcanic soils which support agriculture
- Volcanic rocks are important building materials in the construction industry
- Volcanic features are tourist attractions which promote tourism.
- Volcanic mountains/highlands influence formation of relief rainfall which encourages agricultural activities.
- Volcanic highlands influence formation of relief rainfall which encourages agricultural activities
- Volcanic highlands/mountains modify temperatures making them making them attractive to human settlements
- Volcanic features such as steam jets and geysers provide suitable sites for geothermal power generation.

8. a) i) -Lake /swamp

-Melting ice/snow

-Springs

-Surface run off.

ii)

Youthful stages

- Rapids/water fall/cascades
- V-shaped valleys/canyons
- Potholes

.

- Plunge pools
- Interlocking spurs

Mature stage

- Meanders
- River cliff/bluff
- Wide v shaped valley
- Slip –off- siopes
- Alluvial fans
- Braids

Old stage

- Meanders
- Ox-bow lakes
- Braided channel/isels
- Flood plain
- Levees
- Devees
- Deferred tributaries
- River terraces
- Distributaries/deltas
- Bluffs
- Meanders scar

b) **Traction process**

The large and heavy loads of the river are rolled /dragged along the riaver by the force of the moving water and gravity.

Saltation

Some large fragments that cannot remain suspended in the water are momentarily lifted and dropped by water turbulence. The series of hops move the load down the river.

Suspension

.

Light insoluble materials such as sand and silt grains are carried and maintained within the water by river turbulence and transported downstream.

Solution process

The soluble minerals /materials are dissolved in river water and carried away

c) i) **Dendritic patterns**

- It develops in areas where rocks have uniform structures.
- The direction of flow is influenced by the slope of the land
- The tributaries converge on the main river forming a shape like that of a tree and its branches.

ii) **Trellis pattern**

- The pattern develops where soft and hard rocks alternate vertically
- The tributaries join the main river at acute angles.
- The consequent streams flow to the opposite direction of the main river
- The main river and its tributaries form a rectilinear pattern.

d) i)

- Observation/digging up the deposits to expose the inner layers
- Collecting samples
- Taking photographs
- Interviewing the people around the river. ii)
- It enables one to collect first hand information
- It promotes development of practical skills
- It promotes application of acquired knowledge - One is able to develop skills of data analysis.

9. a) i)

- Due to low temperatures, water vapour freezes and forms snow
- Snow falls and accumulates on the mountain top/higher slopes
- Snow continues pilling and new layers exert pressure on the lower layer
- Lower layers become compressed/compacted as air is expelled from the spaces by show particles - The compacted layers are ice. ii)
- Ice caps - Cirque glaciers b) i) **Temperature**
- Glaciers move faster in summer/when the temperatures are higher because the ice melts due to the warm conditions whereas in winter/ when temperatures are low, ice movement is slow due to cold conditions.
- The temperature of the bottom of the valley glacier rises with Pressure. Thereby thawing and enabling its movement down slope.

.

ii) **Width of a glacier channel**

- When the channel is wide ice movement is slow that is because ice spreads out forming a thin layers there is less pressure to cause thawing that would facilitate ice movement/vice versa.

c) i) **A corrie**

Is a deep rock basin

Has steep sides

Is arm-chair in shape/semi circular

Has a high back wall

Has a reverse slope on the lower side

ii) **Fiords**

Has steep walls

Is a narrow sea inlet

Is a U-shaped

Has hanging valleys

Has deep water shallower seawards/deeper landward

d) i) M- Hanging valley

N-Water valley

P-U-shaped valley / glacial trough

ii)

- A large block of rock stands on the path of oncoming glacier
- The moving ice plucks off/erodes weak rock fragments from the upper side of the rock
- As the ice moves round and over the resistant rock it carries the eroded materials to the lee side
- The lee side does not experience erosion.
- Eroded materials are deposited materials increase on the lee side.
- With time the moving ice smoothens the side of the on coming ice deposited materials increase on the lee side
- The resistant rock is the crag while the materials deposited on the leeward to form the tail.

10. a) i) H-Trough

J-Crest

K-Swash

ii) A backwash is the return flow of water down the beach to the sea after a wave is broken.

b) **Abrasion/corrosion**

.

- Rock fragments carried by waves are used as a tool to grind against the cliff . As waves break rock fragments carried by the back wash erodes the sea.

Solution/corrosion

- The solvent and chemical action of the sea water dissolves and removes the minerals that are found in the cliff/sea floor especially where there are limestone rocks.

Hydraulic action

- The swash/breaking waves hit against the cliffs shattering the rocks. The breaking waves compress air into the cracks/joints in the cliff face. This widens the cracks and parts of the rocks may break off.

Attrition

- Particles that are carried by waves are constantly colliding against each other and wears them into smaller sizes

c) i) **Gradient of the shore**

A show with a gentle gradient reduces the velocity/speed of the flow of the backwash causing the waves to deposit the load on the shore. Where the shore is steep, the velocity/speed of flow of the backwash will cause the materials to be moved from the shore back into the sea. (There will be little or no deposition)

Gentle gradient 2 marks
Steep gradient 2 marks

ii) **Depth of the sea**

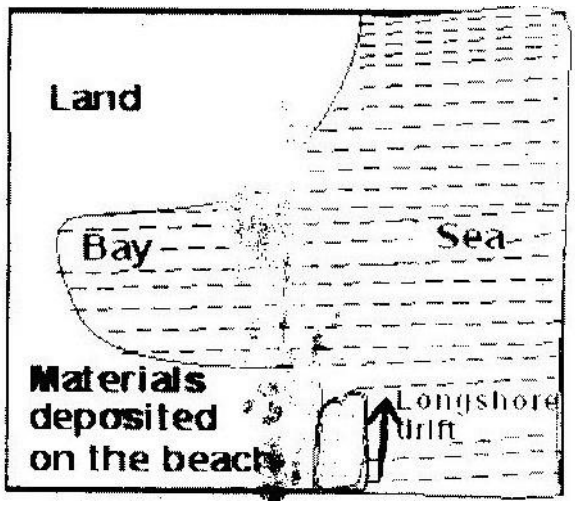
Shallow water causes waves to break thus encouraging deposition. Where the sea is deep, there is less deposition because the sea bed is not in contact with the waves carrying deposits.

Shallow water 2 marks

Deep water 2 marks

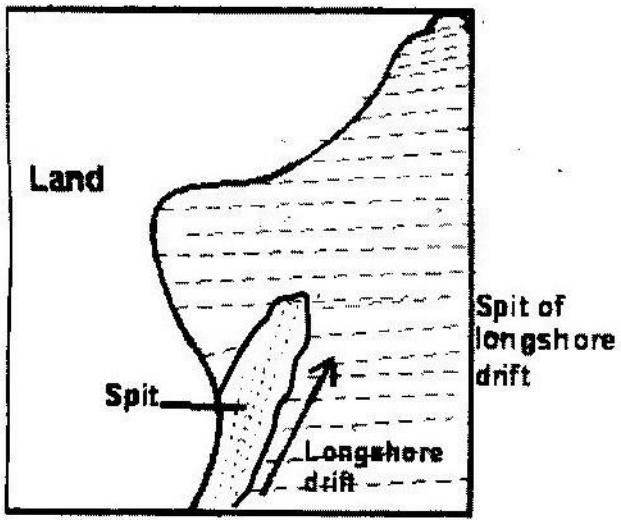
d) Using well labeled diagrams, describe how a bay bar is formed

.



Stage 1

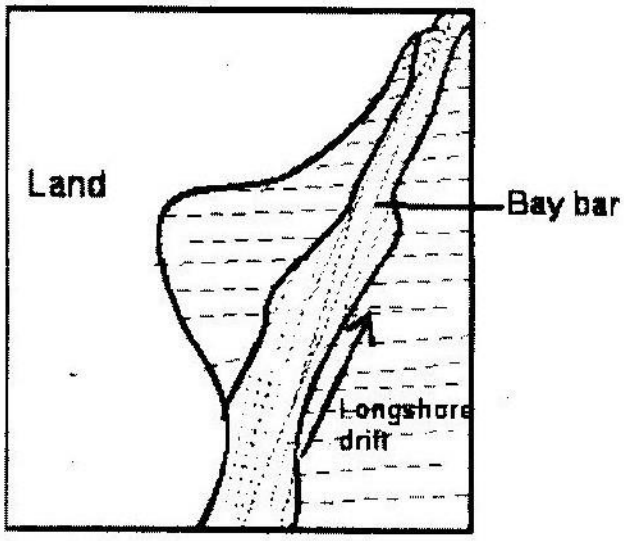
Longshore drift deposits materials at the entrance



Stage 2

A spit forms at the entrance of the bay

.



Stage 3

The alongshore drift continues to deposit materials and the spit extends towards the other end of the lagoon. Eventually the spit reached the other end thus forming a bay bar. Diagrams 3 marks

Text 3 marks **PAPER**

2 ANSWERS

SECTION A

1. - Vegetation is cleared by slashing and burning
   - There is the use of little or no manure/use of ash
   - The land is communally owned
   - The yields decline after a certain period of continuous use. The land is abandoned when the yields decline
   - Both the settlements and plots are temporary
   - Farming depends mainly on family labour
   - The farmers use simple implements
   - It is mainly for subsistence
   - Plots are small and scattered

2. a)
   - In Kenya, softwood forests are found mainly in the highlands while in Canada they are found both in highland and lowland areas.
   - In Kenya, softwood forests cover a small percentage of the total land area while in Canada they cover large tracts of land.

   b)
   - In Kenya, logs are transported by road/trucks while in Canada transport is mainly by water by rivers.
   - In Kenya, transportation is expensive while in Canada it is cheap.

.

3. a) Land reclamation is the process of converting less productive land into a more productive state for agricultural or settlement purposes while land rehabilitation is the process of restoring degraded/impoverished/damaged land back to a useful state.

b) i)

- Diversifying the crops produced in the scheme.
- Improving the quality of the rice produced through research
- The government should restrict the importation of rice to reduce competition.
- Improve the marketing strategies to enable farmers to source for market outside Kenya

ii)

- Continuous dredging of canals/deepening of canals
- Construction of dams to store water for use during dry season.
- Government to enforce laws on proper land use in the catchment areas of the rivers that supply water to the scheme.

4. - To maintain the genetic diversity/genetic pool - To preserve wildlife for future generation/posterity.

- To protect the endangered species of plants and animals - To ensure sustainable utilization of species
- To attract tourists/to earn foreign exchange.
- To use wildlife for research/for education. - To maintain aesthetics for recreation - To provide materials for medicinal extracts.

5. a)

- It has created a large market for goods produced in members countries
- It has resulted in the availability of a variety of goods
- It has led to the establishment of common tariff
- The removal of visa requirements has mad it easier for traders to move across borders within the region.

b)

- Membership to different trading blocks by different countries.
- Lack of a common currency.
- Underdeveloped infrastructure/poor transport network
- Restriction of movement of people and goods/high taxes rates
- Political instability
- Political differences

6. a) i) Ground /ground general view

.

ii)

- On the foreground there is bare ground/some short vegetation cattle browsing /grazing.
- In the middle ground there is a herdsman and some cattle on the move/raising dust.
- There is a road in the middle ground
- At the background there are some patches of grass/some trees/shrubs/thickets
- Some parts of the background are bare surface
- There are in the middle
- Clear skies in the background
- There is a fence in the middle ground

iii)

- The cloudless sky
- The malnourished/thin animals
- Dust raised by moving animals
- Bare ground/sparse vegetation /patches of vegetation/little vegetation
- Patches of dry /brown grass

b) i) The pastoralists keep mainly indigenous breeds such as Zebu and Boran.

ii)

- Their movement is seasonal.
- During the dry season the pastoralists migrate with their livestock to the highlands where there is pasture and water
- During the wet season they move to the plains since pasture is available.

iii)

- Some cattle are sold to slaughter houses/to individuals.
- Some pastoralists sell their livestock through community groups/ranches.
- Some livestock are sold to the livestock are sold to the livestock marketing Department
- Some pastoralists sell their animals to Kenya Meat Commission.

c) i)

- It is a form of insurance against natural calamities /diseases / drought.
- Animals are kept as a sign of wealth/prestige/social status.

.

- Animals are kept for use to pay dowry.
- Animals are used as a source of food/milk/meat/blood
- Animals are a source of income

ii)

- It encourages research /the cross-breeding of traditional cattle breeds with exotic ones. This improves the quality of the animals/cross breeds are more resistant to diseases than pure exotic breeds
- It strengthens community education to teach beef cattle farmers better livestock managements
- It has constructed roads to make services accessible to farmers/make transportation of animals to markets easier
- It encourages the replacement of the coarse grass with nutritious pasture to improve the quality of animals.
- It has sunk bore holes/dug wells/constructed dams to provide water for the animals.
- It has revived Kenya Meat Commission (KMC), a government parastatal that buys animals from farmers for slaughter.

7. a) i)

- National census report
- Text books
- Magazines
- Periodicals/Journals
- Statistical abstracts ii)
- The number of male and female is almost equal to all ages.
- The dependency ratio is high
- The number of infants from age 0-4 is high/the population has a high birth rate.
- The middle age/working population is low
- The number of youth aged 5-19 is high

b) i) -28.7 – 21.4 = 7.3

$\frac{7.3}{21.410} \times 100 = 3.4\%$

ii) **Early marriages**.

Many people in Kenya get married early and this allows them a longer period of fertility resulting in many children being born.

Improved medical care:

.

This leads to higher chances of survival for both the mothers and infants as well as the general population, thus increasing the survival rates.

Improved Diet:

This results into better health for the entire population hence reducing the mortality rate.

Cultural beliefs:

Some cultures encourage large families due to the preference of one gender to other/some /some cultures/religions discourage the use of contraceptive/family planning leading to couples getting many children.

Migration:

Due to political instability in neighboring countries e.g Sudan, Ethiopia there was an increase of refugees hence high population increase.

c) - It leads to high dependency ration resulting into little savings by the working group /low investments/low living standards

- There is likely to be a high unemployment rate since job opportunities may not increase at a rate that can cope with the increasing number of job seekers /may increase the rate of crime
- It increases demand for food which may lead to food shortage
- It increases demand for agricultural land causing land fragmentation/landlessness/destruction of forests.
- Expenditure while meeting demands for the large population reduces revenue that would be used for development of income generating projects hence slow economic growth.

d) **Climate:**

The cool and wet/hot & wet/high & reliable rainfall areas are densely populated because they are suitable for farming/hot dry areas have sparse population because they are unsuitable for farming **Relief**:

Mountains and hilly areas have low temperatures/are rugged and this discourages settlement/development of infrastructure/agricultural activities.

Plains and gently sloping areas are usually densely populated because they are suitable for settlement and other economic activities. Flat areas depression are sparsely populated because of poor drainage, which causes swampy conditions/flooding.

Soil:

Fertile soils are suitable for agriculture thus attracting large population/areas that have poor soils have sparse population.

Pests and diseases:

.

Areas that are infested with pests and disease-carrying vectors discourage settlement since the conditions are unhealthy

Drainage:

Low-lying areas that are prone to periodic flooding and water logging have sparse population because they are unsuitable for agriculture and other economic activities/well drained areas attract settlement

Vegetation:

Forested areas/savannah woodland have wild animals, disease vectors and discourage human settlement and other economic activities

8. i) Soda ash average production for 5 years

=1668446 ÷ 5

=333689 .2 Tonnes

ii) Mineral production for the year 2003

=45369.2 Tonnes

iii)

- It is a raw material for making glass
- It is used in king detergents
- It is used in some chemical industries /petroleum refining
- It is used as a water softener/water treatment - It is in desulphurising steel
- It is used in paper industries.

b) i) E- main shaft/vertical shaft

F- Tunnel/horizontal shaft/Gallery

G- Mineral ore

ii)

- Sometimes, mines get flooded with sub/terrain water.
- There are occasional emission of poisonous gases in the mines.
    - The dust produced causes respiratory diseases
    - Sometimes tunnels collapse causing deaths of miners.

c)

- Gold is highly prices, thus it earns foreign exchanger which used to improve other sectors of the economy.
- Gold provides raw materials for industries that make jewellery and other highly valued items thus promoting industrial expansion.
- Gold as a medium of exchange in the world is used in South Africa as a means of paying international debts.
- Gold mining industry has generated employment opportunities, which raises the standard of living of the people /earn more income

.

- Gold mining has led to development of towns in the Rand and the Orange Free State creating a large demand for agricultural products.
- Mining of gold has led to the expansion of infrastructure such as transport and communication/provision of social amenities.
- Gold mining has led to the development of industrial mining skills that are useful in other sectors of the economy.

d)

- The dumping of rock waste had led to the loss of biodiversity/destruction of natural vegetation
- Dereliction of land due to dumping of waste materials is an eye sore/destroys the natural beauty of the land
- Dereliction of land due to dumping of waste materials is an eye sore/destroys the natural beauty of the land
- Pollution of the areas by noise/blasts smoke and water pools are all health hazards.
- Mining disrupts the water table which may lead to shortage of water.
- Mining takes up land that would have been used for agriculture thus interfering with food production.
- Mining displaces human settlements thus disrupting people and necessitating expensive resettlement processes.

9 a)

- Well drained fertile soils /Black cotton soils
- Gently sloping/undulating landscape
- High rainfall 1200 to 1500 mm well distributed throughout the year.
- Moderate high temperature/20^0C- 28^0C - Long periods of sunlight.

b)

- The land is cleared of its natural vegetation
- It is ploughed using either tractors or ox-drawn ploughs - Harrowing is done to loosen the large lumps of soil.
- Shallow furrows are dug at intervals of 1.2 and 1.8 metres apart.
- Cutting/seed cane are planted in the furrows
- Top dressing/nitrogen fertilizers are applied
- Weeding is done regularly/herbicides are applied
- After 18 months the cane is ready for harvesting
- The cane is cut/harvested using pangas
- The harvested cane is loaded into Lorries for transportation to the factory.

c)

.

- Pests such as termites and white grub/diseases such as ratoon stunting and smut attack the plants and lowers the yields leading to low income for the farmers
- Accidental fires/fires set by arsonists destroy the cane resulting in heavy losses to the farmers.
- Flooding of market by cheap imported/sugar results in unfair competition causing delay in payments to the farmers.
- Delays in harvesting reduce the quality tonnage of the cane reducing the farmer's earnings.
- Closure of some factories such as (Ramisi and Miwani) has deprived farmers of the source of income/annual closures of factories for servicing of machines disrupts the farmers' calendar of activities.
- Poor feeder roads in some areas leads to delayed delivery of the cane to the factory lowering the quality and subsequently the profit to the farmers.
- Prolonged droughts in some areas destroys the crop leading to heavy losses.
- High cost of farm input reduces the farmer' profit margins
- Mismanagement of factories and cooperatives leads to delayed payments thus discouraging the farmers

d) i)

- Weighing of the cane
- Chopping of the cane
- Crushing of the cane
- Boiling
- Filtering
- Grading
- Packing/bagging of sugar

ii)

- Molasses
- Bagasse
- Wax
- Aconitic acid
- Filter cake/mud

10. a) i)

- Canada

ii)

- The convergence of the warm and cold currents causes upwelling of ocean water which bring minerals for planktons to the surface attracting large number of fish to the area

.

- The convergence of warm and cold currents modifies the temperature of the ocean water making the area ideal for fishing throughout the year
- The cool waters favour survival of a wide variety of fish species which makes the area an important fishing ground

b)

- The area has a broad shallow continental shelf which provides suitable conditions for the growth of plankton used by fish as food
- The region experiences low temperatures that are favourable for the survival of fish/for preservation/storage of fish.
- Due to the ruggedness of the land bordering the shaded area/the short growing season. Many people therefore concentrate on fishing as an alternative economic activity.
- The hinterland is densely populated thus providing ready market for the fish.
- Advanced technology has resulted in highly developed ship building/fishing vessels are equipped with modern preservation facilities, thus making it possible for fishermen to carryout large scale fishing.
- The indented coastline provides ideal fish breeding sites/sheltered bays are ideal for setting up fishing villages and ports.

c)

- There numerous inland fishing grounds such as lakes and rivers which are accessible to many people.
- There is low demand for sea fish compared to fresh water fish making fresh water fishing more preferable.
- The narrow continental shelf along the coast of East Africa limits the growth of plankton thus limiting the breeding of fish/limiting the variety of edible fish.
- The stiff competition if the open sea from the industrialized countries whose fishermen use modern fishing equipment discourages local fisherman
- The limited technology and inadequate capital make it difficult to develop marine fishing.

d) i)

- A bag-shaped net is attached to a trawler/ship
- The net is cast into the water by the trawler
- The nets' mouth is kept open by other boards/head beam
- The upper part of the net is kept afloat by corks/floats.
- Weights are used to keep the lower part of the net at the sea bed
- The trawler drags the net along the sea bed.
- After sufficient fish has been caught, the net hauled to the trawler to empty the fish,

.

ii)

- Canning
- Freezing
- Smoking
- Salting
- Sun-drying
- Frying

K.C.S.E GEOGRAPHY PAPER 1 YEAR 2009

SECTION A

1. (a) **Differentiate between the process of formation of plutonic and volcanic rocks**

   - Plutonic rocks form from magma which cool's slowly and solidifies within cracks and chambers in the earth's crust while volcanic rocks form from the lava that cools fast and solidifies onto the surface of the earth.

   (b) For each of the following sedimentary rocks, name the resultant rock that forms after metamorphism

   (i) Sandstone - Quartzite/ late

   (ii) Limestone - Marble

   (iii) Clay - Slate/ Schist

2. **Use the diagram below to answer the questions that follows**

   (See the diagram in the questions paper)

   - Outline the process through which moist winds shown go through to eventually become dry winds

.

- The moist air which is lighter (forced) ascends) the highland in/ the moist air is subjected to prographic force

- The force ascents leads to the expansion of the air
- The moisture in the air condenses forming clouds
- Descending air is dry wind

Any 5 x 1 = 5 mks

3. (a) **What is line of longitude?**
Line based on

It is the angular distance of a place east or west of the Prime Meridian (0^0) it is an imaginary line which is drawn on a map from Prime Meridian (0^0)

(2 mks)

(b) **What is the local time at Alexandra 30^0E when the local time at Malindi 40^0 is 12.00 noon?**

- The differences in degree of longitude between Alexandra and Malindi is $40^0 - 30^0 = 10^0$
- The difference in time between 1^0 longitudes is 4 minutes
- So the total difference in time between the two towns is 10^0 x 4 minutes = 40 minutes.
- Alexandria is west of Malindi so it is behind in time by 40 minutes
- Therefore, the local time at Alexandria is 12.00 – 40 minutes = 11. 20 am

.

(2 mks)

4. (a) **Outline the steps followed when measuring humidity using a hygrometer**

- Read (and record) Temperature of the West bulb thermometer
- Read (and record) the temperature of dry bulb thermometer -

  Calculate the difference in temperature reading of wet and dry thermometers.

- Use the conversation scale o determine the humidity/ interpretation of the temperature differences.

(b) **Give two factors that influence relative humidity**

- Distance from large water bodies/ sea
- Altitude
- Natural vegetation/ forests
- Latitude
- Temperature

Any 2 x 1 = 2 mks

5. **The diagram below shows types of folds. Use it to answer question (a)**

See the diagram on the question paper)

(a) Name the type of folds marked E, F and G

- E - Overfold 225

  F - Recumbent fold

  G - Over thrust fold/ Nape (1 mk)

.

(b) In which countries are the following fold mountains found

(i) Andes - Chile/ Peru/ Bolivia/ Argentina/ Equador

(ii) Cape Ranges – South Africa

(iii) Alps – Austria/ Switzerland/ Italy/ France

SECTION B

6. Study the map of Belgut 1: 50, 000 (Sheet 117/ 3) provided and answer the following questions.

(a) (i) **Name the three districts crossed by the all- weather road (bound surface) in the north – western part of the map extract**

- Kisumu district
- Homa bay
- Kericho

(ii) Using the marginal information, give the magnetic variation of the area when the map extract was drawn.

(iii) Measure the shortest distance along the loose surface road from the junction at Murumbasi (grid reference 286548) to the school at Chebirbei grid reference 344518). Give your answer in kilometers

0.1 km) 8.4 – 8.6 km

(iv) **What is the approximate height of the papyrus swamp to the north-east of Kabiaranga Farm Institute (grid square 3750).**

.

Between 1720 and 1780 in above sea level

(b) **Describe the characteristics of the long profile of river Yurith**

- It has two main tributaries, Itare and Kitoi
- River Kitoi flows from the north Eastern direction/ river Itare flows from the south / river Yurith flows westwards.
- The river has many meanders
- The river becomes wider from grid square 3247 just before the bridge
- There are interlocking spurs along the course.
- The river has many small tributaries that form a dendrite/ pattern along the course
- There are rapids/ waterfalls
- Some parts of the long profile have a steep gradient
- There are sand/ mud deposits downstream
- The river is permanent/ premier

(c) **Describe the relief of the area covered by the map**

- The lowest altitude is 1360/ highest altitude is 2020 m
- The land rises from the West to the North East
- the landscape is generally hilly/ has many hills
- There is a main ridge to the East of Sondo River
- There are many interlockings spurs along the river valley
- The landscape is dissected by many river valleys

.

- There are many, narrow river valleys
- There are numerous steep slopes to the west/ gently slopes to the east

(d) **Citing evidence from the map, explain three factors that favour growing of tea in Belgut area**

- The area experiences cool temperature that favour tea growing due to the high altitude as evidenced by contours that rise above 1700 meters above sea level
- The area receives high rainfall that is adequate for growing tea as evidenced by the presence of forests/ many permanent rivers
- The area has well drained soil suitable for tea growing this is due to the gently sloping, Terrain as indicated by moderately spaced contours
- The area has adequate supply of labour necessary for tea picking evidence by the high density of settlement/ labour lines
- The area has well development transport network for transporting tea leaves to the tea factory evidenced by road and tracts

7. **The diagram below shows a hydrological cycle**

See question paper

(a) (i) **What do the arrows labeled K, L and M on the cycle represents?**

K- Radiation/ half from the sun/ sun's rays/ in solution

L- Percolation/ Underground water

.

M Evapotraspiration / Evaporation/ water vapour

(ii) **Explain the factors that influence the occurrence of surface- off**

- Amount of water/ nature of rainfall- there should be sufficient rainfall to make the soil saturated in order to allow the excess water to flow on the surface/ intense rainfall accelerates the rate of surface run off be steep 15

- Gradient of the land- The gradient of the slope should be steep to allow flow of water by gravity

- Nature of rocks/ soils- The rocks/ soil should be responsible to allow for limited infiltration and percolation for the excess water to form surface run-off

- Water table/ level of saturation – the water table should be high to reduce infiltration and allows surface run- off

(b) (i) **what is mass wasting?**

- It is the movement of weathered/ rock material down the slope under the influence of gravity

(ii) **Give two processes of slow mass movement**

- Soil creep
- Talus creep/ screen creep
- Solifluction

.

- Rock creep

(iii) **State two physical conditions that may influence Landslides**

- Steep slopes which allow soil to move down slowly
- Presence of loose soil/ absence of firm rock which means that soils are easily destabilized
- Occurrence of earthquakes which interferes with stability of soils
- Heavy rain facilities movement of material/ down slope.

Any 2 x 1= 2 mks

(c) **Describe the following processes of mass wasting**

(i) **Rock Fall**

- It occurs where rocks are well jointed and with steep slopes. Rocks parts are detached from the steep slopes and fall rapidly at the base of slope/ frequent freeze- thaw action on steep slope/ produces particles which get detached and fall at the base of rock face.

(ii) **Subsidence**

- Subterranean weathering leads to formation of caves/ cavers. Where the roof is too heavy to remain suspended, it collapses vertically.

(iii) **Mud flows**- wet and loose soil materials saturated with water will move down the hill. (As the semi- liquid mud collects more materials it comes rest at the roof of the slope.

.

(d) **Explain the effect of mass wasting on the following**

(i)	Tourism	Features created through mass wasting are tourist Attractions
(ii)	Soil & Fertility	Mass wasting facilities soil leading to soil Degeneration/ may lead to formation of fertile soil where such soils are deposited.

8. (a) (i) **Name three type of faults**

- Normal fault
- reverse fault
- Tear/ shear fault/ slip/ transform/ wrench/ strike slip
- Thrust fault
- Ant clinical fault

(ii) **Apart from compression forces explain two other processes that may Cause faulting**

- Faulting may be caused by force acting horizontally away from each other which cause tension in the crystal rocks. Due to tensional forces the rocks stretch and fracture causing faults

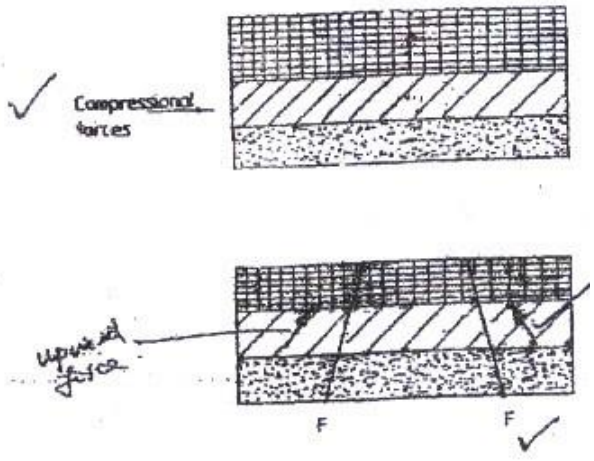
- Faulting may occur where horizontal forces act parallel to each other in the opposite/ same direction resulting in shearing

- Faulting may also occur due to vertical movements which may exert a strain in the rocks making them to fracture.

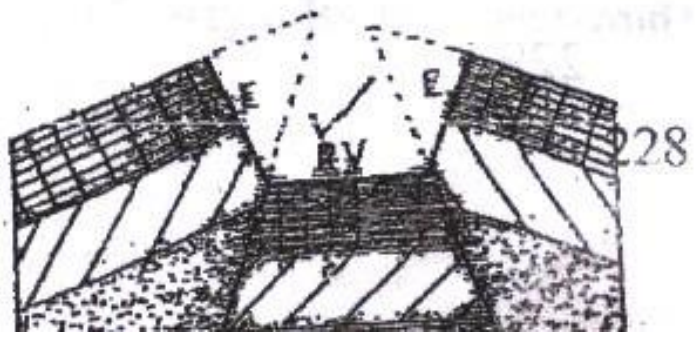
.

(b) With the aid of diagrams, describe how compression forces, may have led to the formation of the Great Rift Valley

- Layers of rocks are subjected to compression forces



Two parallel lines of weakness development and these reverse faults



Compression forces may push the outer blocks towards each other the outer ride over the middle block) the middle block sinks/ subside/ may remain stable

- The sunken middle part forms a depression called a rift valley

.

- Layer — Diagrams 4 mks)
- Fault line — explanations (5 mks)
- Compression
- Upward force
- Rift Valley

(c**) Explain five ways in which faulting is of significance to human activities**

- Faulting leads to formation of features that form beautiful scenery which attract tourists
- Faulting leads to formation of lakes that are important fishing grounds/ tourists sites / mining sites/ provide water for irrigation/ for domestic use/ industrial use.
- Faulting causes displacement of rocks which exposes minerals that are mined
- Faulting may lead to the formation of mountains/ horst which attract rainfall that give rise to rivers which provide water for industrial/ domestic/ agricultural use/ industrial use for production of H.E.P
- Block mountains formed through faulting lead to formation of relief rainfall on the windward side which favours agriculture/ and settlement / forestry

.

- Subsidence of land as a result of faulting may lead to loss of life and property

- Springs occurring of the foist of fault scarps attract settlements
- Faulting creates deep faults which are passages of stream jets which may be utilized for geothermal power production

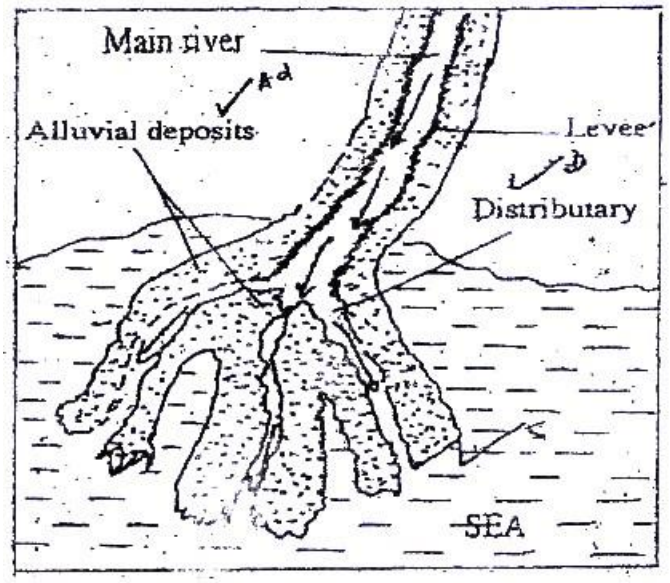
- Rivers flowing over fault scarps may form waterfalls
- When faulting occurs across a ridge it may provide a dip which could form a mountain pass where transport and communication lines can be constructed/ may hinder development of transport.

9. (a) (i) **Apart from Bird's foot delta, name two other types of deltas?**

- Arcuate delta
- Estuarine delta
- Cuspate delta

(ii) **Draw a diagram to show a bird's foot coastal delta**

.



SHAPE birds foot

(ii) **Describe how a bird's foot delta is formed**

- It forms at river where waves, tides and currents are very week
- Deposition of large amounts of fine sediments occurs at the river mouth
- The deposits block the channel of the river
- The river divides into few distributaries
- Each distributary's continues to deposit its load maintaining levees as it extends into the sea.
- Some distributaries extended further than others creating the shape of a bird's foot

(b) **Explain four factors that influence the development of coasts**

- Climate of an area will determine the growth of coral polyps. Coral coats develop in tropical regions of the world/ fiord coats were formed as a result of ice erosion in areas that experienced very cold climates

.

- Nature of the coastal rocks will either encourage rapid erosion or reduce the speed of erosion. Hard rocks result in the formation of cliffs while less resistant rocks results in the formation of inlets/ bays

- The gradient of the coast slope of the coast influence the development of coasts steep coasts encourage wave erosion resulting in the formation cliffs and wave cut platforms/ gently sloping coasts because increased deposition resulting in the formation of beaches

- Alignment of the coast in relation to the prevailing winds will either cause wave erosion or deposition

- The rise in the level of the sea results in drowning features along the coast to give rise to new feature/ landforms the fall in the sea level exposes features that were once covered by the water
- Human activities interfere with the natural state and appearance of the coasts

- Nature of waves- where waves are destructive the West is characterized by erosion/ features/ where waves are constructive the coast is characterized by depositional/ features

(c)(i) **Differentiate between a barrier reef and a fringing reef**

.

- A barrier reef is formed a long distance away from the sore and is separated from the shore by a wide lagoon whereas a fringing reef is closer to the shore and is separated from the shore by a shallow lagoon

(ii) **The diagram below represents some coastal features. Name the features marked P, Q and R**

(See question paper)

P - Blowhole

Q - Cave

R - Cliff

(iii) **State three conditions necessary for the formation of a beach**

- A gently sloping land at the sea shore
- The shore should be shallow
- Strong swash/ constructive waves/ weak backwash/ wave deposition should exceed erosion
- Waves should carry a lot of materials to be deposited

10. **The diagram below represents underground features in a limestone area. Use it to answer question (a)**

See question paper

(a) (i) Name the features marked X, V and W

X - Stalactite

V - Stalagmite

.

W - Cave

(ii) **Describe how the features marked Y is formed**

- Solution of solution carbonate trickles down slowly through the roof of a cave/ cavern
- Solution droplets hang on the roof of the cave
- Water evaporates and calcium carbonate it is precipitated
- The precipitated calcium carbonate gradually builds downwards over a period of time as the solution continues to drip from the roof. This forms a stalactite
- The solution splashes on the floor and water evaporates
- The calcium carbonate in it precipitates and gradually builds upwards to form a stalagmite.
- Over time, the stalactite and the stalagmite join to form a pillar/ column

(b) (i) **What is an artesian basin**

- It is a saucer – shaped depression consisting of layer of permeable rock lying between two layers of impermeable rocks, with part of permeable rock exposed to the surface along the edges of the basin.

(ii) **Explain three factors which influence the formation of features in limestone areas**

.

- The surface rock must be thick limestone to allow solubility by rainwater
- The rock should be hard and well jointed to allow water to percolate through the lines of weakness
- The climate should be hot and humid to facilitate chemical reaction/ weathering/ carbonation.
- The water table should far below the surface to allow for the formation of the features

(Any 3 x 2 = 6 mks)

(c) **You are supposed to carry out a field study of an area eroded by water**

(i) Give three reasons why you would need a map of the area of the study

- To show the extent/ delimit the area of the study
- To show the route to be followed during the study
- To show drainage features
- To be able to estimate distances
- To show the general nature of the terrain

(ii**) Name two erosion features you are likely to identify the field study**

- Exposed rocks
- Ridges / clients

.

- Gullies/ wades/ grikes/ dry river bed
- Earth pillars

(iii) **State three recommendations that you would make from your study to assist the local community to rehabilitated the recorded area**

- Building of gabions
- Constructing of terraces
- Planting trees
- Adapting farming methods that allow conservation of soil. i.e. planting of over crops / mulding/ strip farming.

Any 3 x 1 = 3 mks)

.

ANSWERS TO K.C.S.E QUESTIONS 2009

GEOGRAPHY PAPER 2

SECTION A

1.(a) **Name two exotic species of trees planted in Kenya.**

- Pine
- Cypress
- Blue gum /eucalyptus
- Wattle
- Kei-apple
- Jacaranda
- Bomb ax
- Grevilea
- Cedar

b) **State three reasons why it is necessary to carry out Afforestaion programmers in Kenya.**

- To protect water catchment areas
- To protect soil from erosion by wind/water
- To ensure sustainable supply of forest products
- To put more land under forest cover
- To check the extinction of indigenous trees.
- To regulate climate

.

2 a) **Give three physical conditions that favour maize cultivation in Trans Nzoia district in Kenya.**

- Temperatures ranging from 10^0C to 30^0C/Moderate to high temperature/warm to hot condition
- Rainfall ranging from 800mm to 2500mm/moderate to high rainfall
- Deep (fertile) well drained soils/volcanic
- Gently sloping/undulating land
- Sunny/dry season for ripening.

b) **State three reasons facing maize farming in Kenya**

- High cost of farm inputs poor quality seeds
- Unpredictable climatic conditions
- fluctuating/low prices
- Pests e.g. cornea warms/silk warms and diseases affecting the crop/impassable roads during the rainy seasons.
- Poor storage facilities.
- Inadequate capital
- Striga weeds/ couch grass

3 a) **Outline three physical factors that favoured the development of the Seven Forks hydro-electric power scheme**.

- presence of har basement rock
- Presence of large volume of water from River Tana

.

- Presence of waterfalls/rapids/steep gradient
- Presence of narrow steep sided river valley/deep gorges
- Presence of impervious rock
- Regular flow/constant of R.Tana

b) **State two problems facing hydro-electric power projects in Kenya**

- Seasonal fluctuation of water levels in the rivers
- Frequent silting of the reservoirs
- High cost of maintenance of machines
- High cost or transmission of power from remote sites
- Inadequate capital to expand the projects any 2x1 (2 mks) 4.

Use the sketch map below to answer questions (see question paper)

a) **Name the main settlement pattern in**

i) The Northern part of the area represented by the map-linear

ii) The Southern part of the area represented by the map-

nucleated/ scattered

b) **State two ways in which government policy may influence the distribution of human settlement.**

- the government may displace people in order to set up projects in an area/projects setup by the government attract settlement.

.

- The government may set up settlement schemes to resettle the landless
- the government may gazette certain areas as reserves, thus controlling settlement. Any 2x1 (2 mks)

5 a) **Apart from windstorms name two other environmental hazards associated with climatic conditions.**

- Lighting
- floods
- Drought/desertification
- landslides
- -Heat waves

b) **State three problems caused by windstorms in Kenya**

- Windstorms destroy trees and crops
- They blow off roofs of houses
- They disrupt transport and communication lines
- They spread bush fires
- They cause strong sea storms
- Accelerate erosion

SECTION B

6. The table below shows the number of tourists who visited Kenya from various parts of the world in 2005 and 2006. Use it answer questions (a) and (b)

Place of origin	2005	2006

.

Europe	942,000	965,000
Africa	120,000	154,000
Asia	97,000	128,000
North America	94,000	103,000
Australia & New Zealand	19,000	24,000
All other countries	29,000	41,000
Total	1,301,000	1,415,000

Source: Central Bureau of Statistics

a) i) which continent had the highest increase in the number of tourists visiting Kenya between 2005 and 2006?

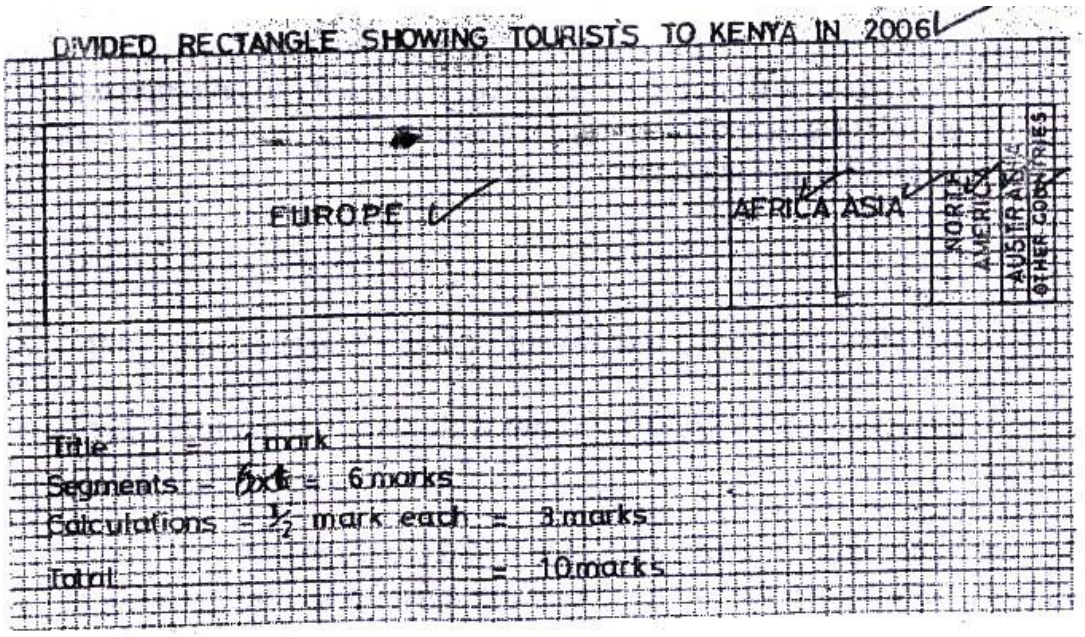
Africa

ii) Calculate the percentage increase in the number of tourists visiting Kenya between 2005 and 2006?

$\frac{5000}{10,000} \times 100$ = 26.3%/26.32%/26%

iii) Draw a divided rectangle 15 cm long to represent the number of tourists that visited Kenya in 2006. Show your calculations.

.



Europe- 965,000 x 15 = 10.2 cm ½ /10.23 cm
1,415, 000

Africa- 154,000 x 15 = 1.6 cm ½ cm
1,415,000

Asia – 128, 000 x 15= 1.4 cm ½ /1.09 cm
1,415,000

North America 103,000 x 15 = 1.1 cm ½ /1.09 cm
1,415,000

Australia & New Zealand 24,000 x 15 = 0.3 ½ /0.25 cm
1,415,000

All other countries 41,000 x 15 = 0.4 cm ½ /0.43 cm
1,415,000 (10 mks)

b) (i) **State twp advantages of using divided rectangles to represent**

.

Geographical data

- They give clear visual impression of individual components
- They allow easy comparison
- They can be used to represent a wide range of data
- They are easy to draw
- They are easy to read/interpreter.

(Any 2x1 (2 mks)

ii) **Give four reasons why in 2005 and 2006 there were more tourists visiting Kenya.**

- There were many direct flights from European capitals to Kenya
- There has been aggressive marketing for tourism in Europe
- Europe has had long historical ties with Kenya/good relations
- European countries encourage package tours to Kenya.

(Any 4 x1(4 mks

c) **Give five reasons why domestic tourism is being encouraged in Kenya.**

- To expose Kenyans to the wide variety of recreational facilities
- To make use of tourist facilities during the low tourist seasons
- To ensure that Kenyans become familiar with the different parts of the Country
- To make Kenyans appreciate the country's national heritage /artifacts/culture/wildlife.

.

- To enable people from different communities to interact / to enhance national unit

- To enhance circulation of money within the country/to promote domestic trade

- To create employment in the country.

7 i) **State three physical conditions that favour coffee growing in the Central Highlands of Kenya**

- The highlands experience high 1000-1500 mm well distributed rainfall per year which is ideal for coffee.

- The soils are deep fertile volcanic type.
- The area experience cool to warm conditions 14-24^{0}C throughout the year
- The land has gentle slopes that allow good drainages/well drained soils

(Any 3 x1 (3 mks)

b) **Describe the stages involved in coffee production from picking to marketing**

- The ripe/deep red berries are picked by hand
- The harvested berries are carried in baskets/sacks to the factory
- The berries are sorted out to remove the outer/diseased berries
- The different grades are weighed
- Berries go through a machine that removes the outer covering /pulp

.

- The beans are fermented in tanks for sometime. - The beans are washed and then sun dried for about a weak

- The husks are removed and the beans winnowed.
- The beans are sorted out and graded according to size and quality
- The beans are roasted at temperatures of about 10^0C
- The beans are ground into powder ready for sale.

NB: The sequence should be followed. (Any 4x2= (8 mks)

c) **Explain four problems facing coffee faming in Brazil**

- the wasteful techniques of growing the crops leads to soil exhaustion which makes the coffee yield per hectare low unregulated cultivation leads to soil exhaustion/low quality coffee.

- Climatic hazards/ frost destroy coffee plants reducing the yields.
- Unplanned planting leads to overproduction surplus production which lowers the prices.

- The fluctuation of coffee prices in the world market sometimes leads to low profits.

- Stiff competition from other coffee producing countries reduces Brazil's dominance in the world coffee market. Any 4x2 = (8 mks)

NB: Explanations alone cannot earn a mark

Problems max 4

.

Explanations max 4 (total (8 mks)

d) Your geography class carried out a field on a coffee farm

i) **State four methods the class may have used to collect data**.

- Administering questionnaires
- Interview/asking questions
- taking photographs/video tapping
- Observation
- taking photographs/video tapping
- Observation
- taking measurements
- Collecting analysis
- Content analysis (Any 4x1 (4 mks)

ii) **During the field study the class collected data on quantities of coffee produced in the farm in the last five years. State two methods the class may have used to present the data.**

- Drawing charts
- Drawing tables
- Drawing graphs (Any 2 x1 (2 mks)

8 a) i) **what is visible trade?**

- Visible trade involves exchange of goods between countries / visible trade

Involves the import and export of goods.

.

Any 1x2 (2 mks)

ii) **List three major imports to Kenya from Japan.**

- automobiles/Motor vehicles parts
- textiles
- Machinery/electronic appliances/radios /TVs
- Watches/precision instruments.

(Any 3x1 (3 mks)

b) **Explain four factors that influence internal trade in Kenya.**

- The demand for a variety of domestically produced goods, leads to expansion of trade.
- The cultural differences lead to distinctive specialization in production of goods for exchange.
- The production of similar goods/products by different regions limits the market potential./Different goods enhance trade among different regions.
- The low purchasing power by a majority of Kenyans limits the market for goods produced.
- the level of development networks/limit/enhances trade as certain commodities may not/may be carried over long distances/the market potential is restricted/expanded.
- Security encourages expansion of trade/discharge trade.

.

NB:/ Explanation alone cannot score but factor alone can score.

C) **State four ways in which trade is of significance to Kenya**

- Trade generates revenue through taxation of the goods and services
- Trade creates employment opportunities in the industries that are established/creates self employment
- The demand for goods stimulates industrial growth/agric growth
- The exports of goods enable the country to earn foreign exchange
- The need to reach far off markets leads to expansion of transport facilities
- Trade stimulates specialization in the production of goods
- Trade enhances cooperation between Kenya and the trading partners.

4x1 (4 mks)

d) **Explain four benefits which the member states of ECOWAS have derived from the creation of the trading bloc.**

- The volume of trade has been boosted as a result of an expanded in the region.
- More transport facilities have been constructed to link the member states of the Cooperation.
- The removal of trade barriers has extended the market for the finished products/secured the market for the member states

.

- The transfer of technology/capital within the trading area has been enhanced.

- The transfer of technology/capital within the trading area has been enhanced

- Cooperation in other fields such as education/health/and communication has been enhanced.

- The reduction in other fields such as education/health/communication has been enhanced.

- Cooperation in other fields such as education/health/communication has been enhanced.

.

- The reduction in hostilities between members' countries has enhanced peace resulting in rapid economic development.

(4 x2 (8 mks)

9. (a) (i) **Name three agricultural non-food processing industries in Kenya.**

- Tobacco processing
- Footwear making
- Leather training
- Beeswax processing
- Sisal processing
- Pyrethrum processing

Any 3 x 1 (3 mks)

ii) **State four ways in which Kenya has benefited from the mot-vehicle industry.**

- Kenya saves foreign exchange
- Kenya earns foreign exchange through motor-vehicles export
- The industry has created employment opportunities
- The industry has created employment opportunities
- The industry has promoted transport sector by availing buses/lorries/vans/cars

.

-

b) **Explain three problems arising from industrialization in Kenyan.**

- Industrialization has led to rural-urban migration which has increased the urban population leading to congestion/shortages of houses/ increase in crime

  Some industries emit toxic gases which are harmful to people/ wildlife

- Industrial effluent pollutes water sources making the water unfit for human/animal use.

- Fumes from chemical industries corrode metallic roofs of buildings hence destroying them.

- Fumes from chemical industries corrode metallic roofs of building hence destroying them

- Congestion of infrastructure and social services in the industrial waste has led to the degradation of land

- Some industries have led to the displacement of people thus disrupting their social and economic life.

(Any 3x2 6 mks)

c) **Explain three factors which influenced the location of iron and steel industry in Ruhr region of Germany in the 19th Century.**

.

-
- Availability of coal- iron ore as well as limestone from the Rhine valley provided raw materials needed in the industry.

- River Rhine/Ruhr/lipped/wupper/Escher provided water required for cooling machines in the industry/industrial use.

- The region is served by navigable rivers e.g. R. Rhine/ruhh/ port manual ems, cheap transport for the bulky raw materials and finished products.

- The region is served by navigable rivers e.g. r. Rhine canals e.g. which provided Rheine

  Cheap transport for the bulky raw materials and required for cooling machines in the industry/ industrial use.

- Coal from the Ruhr region/imported petroleum provided power required in the industry

- The local population had acquired skills on iron working/availability of local skilled labour and this formed the foundation of iron and steel industry.

- Presence of rich companies e.g. Ruhr Khlet Krupp provided capital for the development of the industry

- The dense and affluent population in (central and Western) Europe

.

- /Germany provided ready market for iron and steel.

(any 3x2 6 mks)

d) You intend to carry out a field study of furniture-Making industry in the local market centre.

i) **State two reasons why it would be necessary for you to visit the area of study in advance.**

- To be used to be used to prepare a route map
- To determine the suitability of the area for the study
- To be able to formulate appropriate objective for the study
- Preparation of work schedule
- To be able to formulate appropriate objective for the study.
- Preparation of work schedule
- To be able to prepare appropriate data collection methods
  To find out possible problems likely to be experienced during the field study
- To seek permission for the visit.
- To determine appropriate tools for the study-to determine the likely cost to be incurred during the study.

.

-

ii) **For your field study, you have prepared a work schedule. State two items you would include in the schedule.**

- Time for departure
- Time to spend in the study
- Time for lunch
- time to end the study

Any 2x1= 2mks)

iii) **Give two advantages of studying about furniture-making through field work**

- It enables one to get first hand information
- It makes learning real
- It enables one to share information
- It enables one to retain information learned
- It enables one to apply skills learned
- It enables one to apply skills learned/acquired skills.

Any 2 x 1= 2mks)

.

10. **The map below shows the location of some urban centers in east Africa. Use it to answer question (s). (See question paper)**

a) i) name the towns marked P, Q & r

P - Kampala

Q - Kigoma

R - Mandera

ii) Name the minerals that influenced the growth of the towns marked X and Y.

X- Diamond

Y- Trona / soda ash (2mks)

b) **Explain four factors that influenced the growth of the towns marked X- and Y.**

- Eldoret started as a railway station on the Kenya Uganda railway and thus attracted settlement by the people from around the town.

- Eldoret has a rich collection and processing centre

- It is located in an area that experiences cool and wet climate ideal for settlement

.

- The terrain of the land is a plateau which allows for expansion
- The modern infrastructures such as the international airport have.

  Encouraged trade
- High population in the surrounding region provides market for agricultural/manufactured goods/provides labour for the industries.
- the government policy of decentralization of industries led to setting up of some industries in the town
- Eldoret is a district headquarters for Uasin- Gishu district and this has attracted administrative services in the town.
- Establishment of many educational institutions has attracted settlement

c) **Compare the ports of Mombasa and Rotterdam under the following subheadings**

i) Site-Mombasa is located on the drowned mouths of rivers Mwachi and Kombeni while Rotterdam is at the mouth of the river Rhine.

(2mks) ii) Transport links to the interior-Mombasa relies on road, railway, air and pipeline to the interior while Rotterdam has in addition, river Rhine and canals Rotterdam is a major transshipment centre.

iii) The hinterland

Both ports have extensive hinterlands. Mombasa's hinterland extends to DRC congo while Rotterdam serves the continental Europe.(2mks)

.

iv) Port facilities- both ports have containerized terminals. Rotterdam has very large warehouse and more modernized/ sophisticated port facilities

(2mks)

d) **Explain two ways in which urbanization negatively affects the surrounding agricultural areas.**

- Dumping- The nearby agricultural lands are sometimes used as dumping grounds for the waste generated in the urban centers, thus polluting the environment

- There is conflict in land use as the urban centers expand into the land that would otherwise have been used for agriculture

- There is competition for labour as urban centers offer higher wages than agricultural areas.

Any 2x2 (4 mks)

.