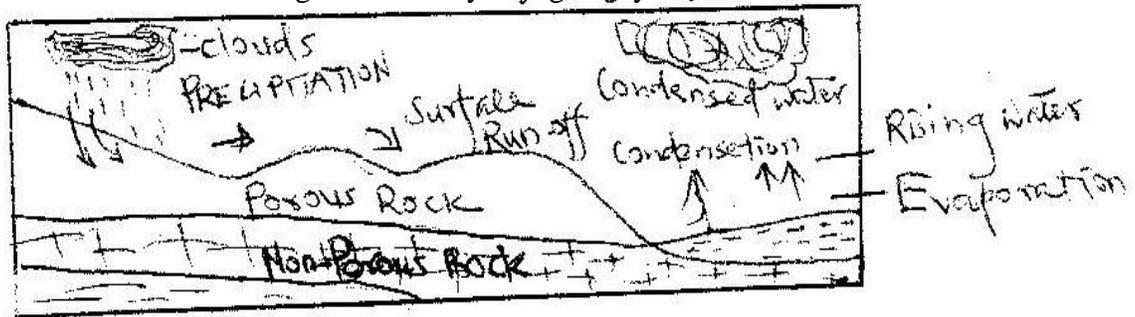


GEOGRAPHY PAPER 312 / 1 K.C.S.E 1997
MARKING SCHEME SECTIONS A

1. a) P – Atmosphere
Q – Crust / lithosphere
R – Mantle / mesosphere
- Silica
- Magnesium

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

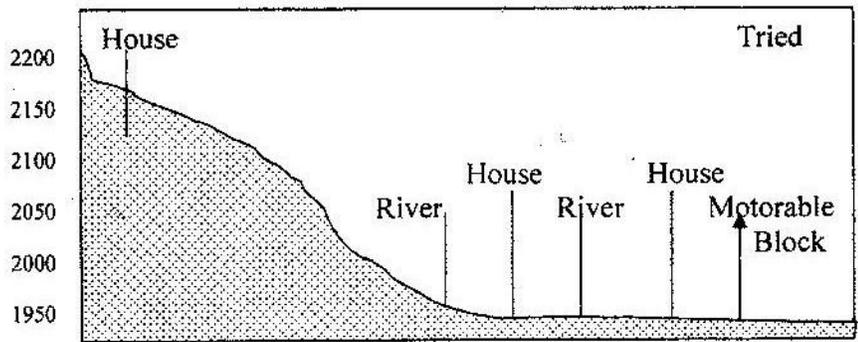


- b) Through springs / wells / see page
Capillary action / transpiration
3. -X – Stalactite
-Y – Stalagmite
-Z – pillar / limestone pillar / limestone column
4. a) It is the creeping , flowing , sliding or falling of rocks and weathered material
Under the influence of gravity / Downward movement of the 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°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

570670 Vertical Scale must be set 620670

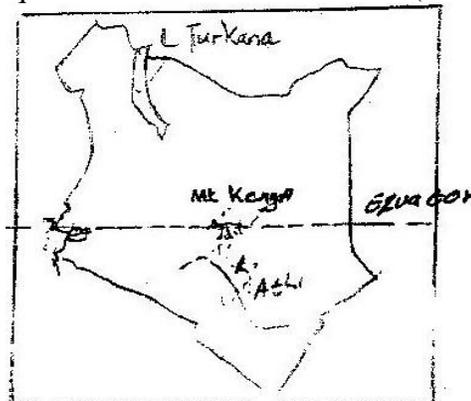
- c) Drainage comprises mainly of rivers that are permanent
- ❖ Peaks forming radial patten
 - ❖ Specific rivers such as Turgenon and Kipswes from dendritic pattern
 - ❖ The rivers flowing from the Ainamoi hill (grid sq.5566) to the north – west from parallel drainage pattern.
 - ❖ There is a papyrus 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 west.
 - ❖ 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° and 24°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 rest of the year remains warm.
 - ❖ Days are warm while nights are cool / chilly
 - ❖ Mean annual range of temperature is low (3-5°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 sites 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
 - ❖ Medial 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 °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 from 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

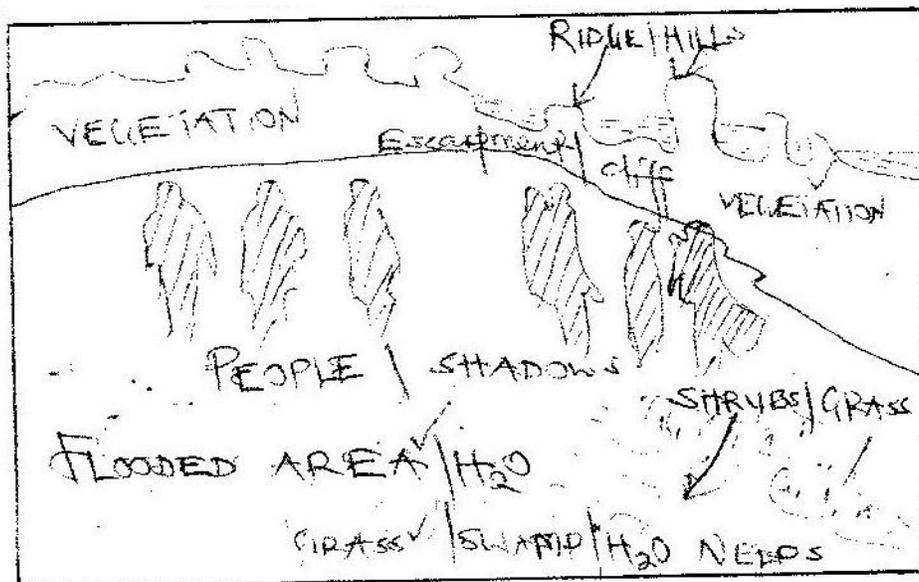
GEOGRAPHY PAPER 312/2 K.C.S.E 1997
MARKING SCHEME
SECTION A

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 fairly 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 disrupts 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 flooded 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 borders

- ❖ 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.