

**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 Mercalli 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

$$28^{\circ} - 24^{\circ}\text{C} = 4 \quad (1 \text{ mk})$$

(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°C
- The annual range of temperature is small / 4°C
- 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) meets with the road to Nyeri and Nanyuki ( B5) 114031 (2mks)

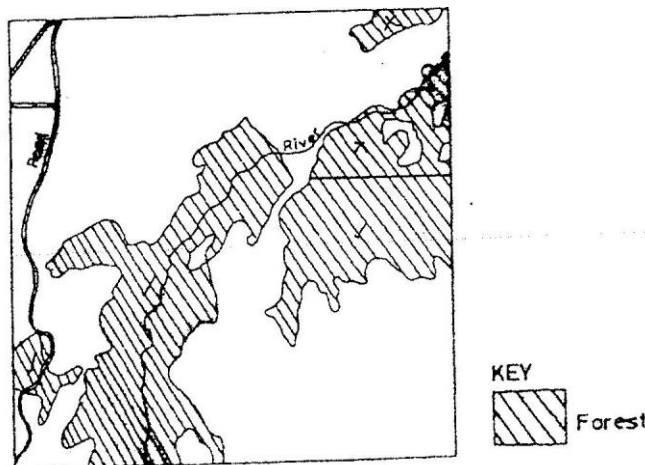
(ii) Calculate the bearing of point X from point Y  
-312 - 314° (2mks)

(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)



(b) 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 for 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)

(c) 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 point 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 that 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 have 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 dividing 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 encourage 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 form
- 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

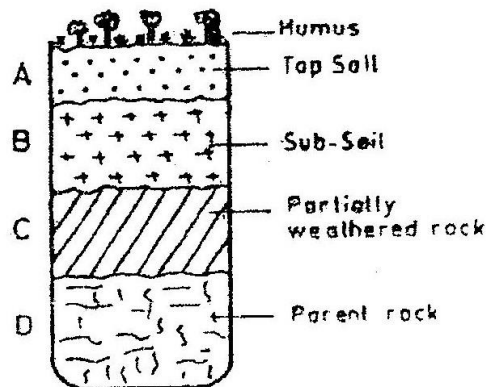
(Any 4 x 1 = 4 mks)

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

A 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 form 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 through 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 x 1 = 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°C



- ❖ 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/ diesels
- ( 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 earth'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 pantallassa. The Northern hemisphere was called Laurasia and southern Gondwana 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)  
 -  $135^{\circ}$
- 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 representing 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 outcrop (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 Taita 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

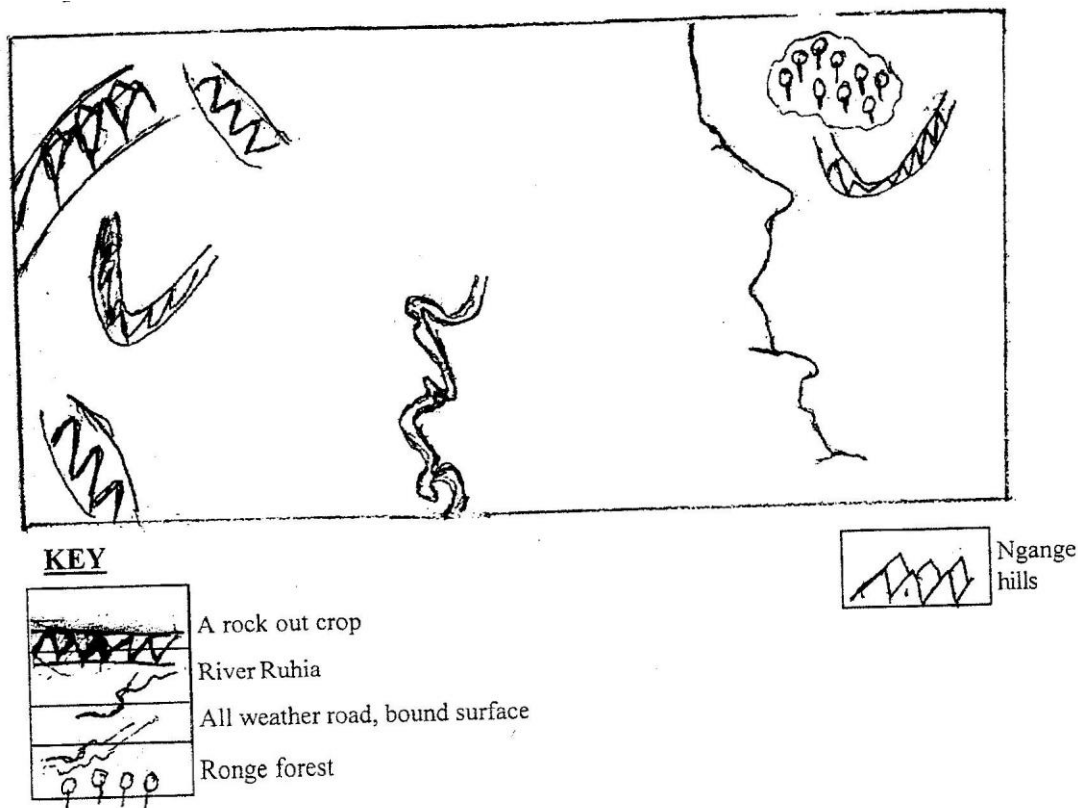
- Mining-quarry

- Lumbering animals –national parks

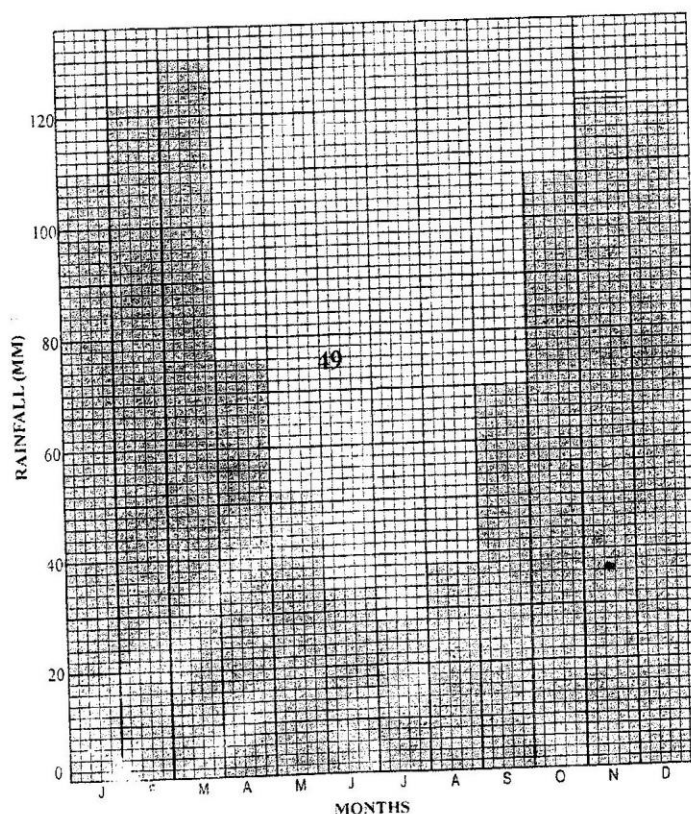




- 6 b) Draw a rectangle measuring 16cm by 12cm to represent the area enclosed by the Eastings 24 and 40 Northings 20 and 30. (1mk)



8.b) i)





- 7a) 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 fracture.
  - 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<sup>0</sup>C-29<sup>0</sup>C (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 30 -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 °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)  

$$24 + 24 + 23 + 22 + 19 + 17 + 17 + 18 + 19 + 20 + 22 + 23$$

$$= \frac{248}{12} = 20.66^{\circ}\text{C} / 20.67^{\circ}\text{C} / 21^{\circ}\text{C}$$
- (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 field 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 through 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.

(b) (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

(c) **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**

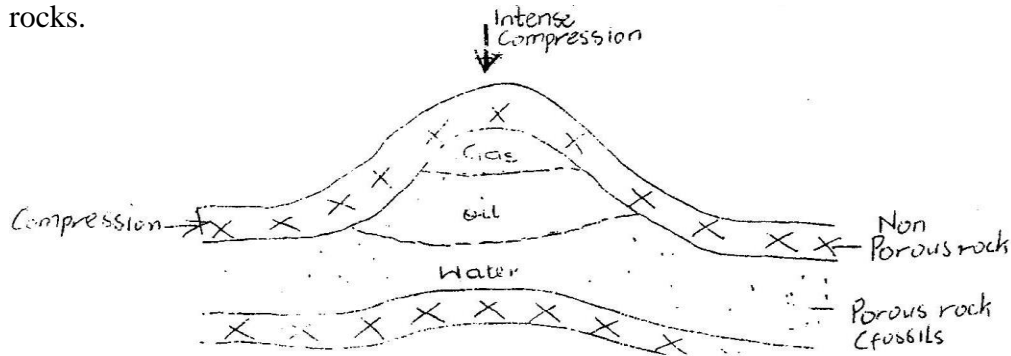
- 1a) Name two exotic breeds of dairy cattle reared in Kenya  
Fresian / Hoisten  
Ayshire  
Guernsey  
Jersey  
Alderney  
Brown Swiss / Swiss Brown
- b) State three physical conditions that favour dairy farming in Denmark  
The landscape is gently sloping which is suitable for grazing  
The climate has warm / sunny summer / moderate temperature ( $10^{\circ} - 17^{\circ}\text{C}$ ) 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 ( $21^{\circ}\text{C} - 30^{\circ}\text{C}$ )
  - 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
United Arap Emirates	2,500
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 ( $2.55 \times 10^8$ )
- iii) Calculate the average daily petroleum production for Kuwait for April 2006.  
 $2,550,000$  barrels (  $6.34 \times 10^6$ )



- b) State three conditions that are necessary for the formation of petroleum.  
 Deposition / presence of fossilised remains over a long period of time / fossils  
 presence of porous rocks / presence of non porous underneath in the deposits of the flora and fauna.  
 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 \_\_\_\_\_

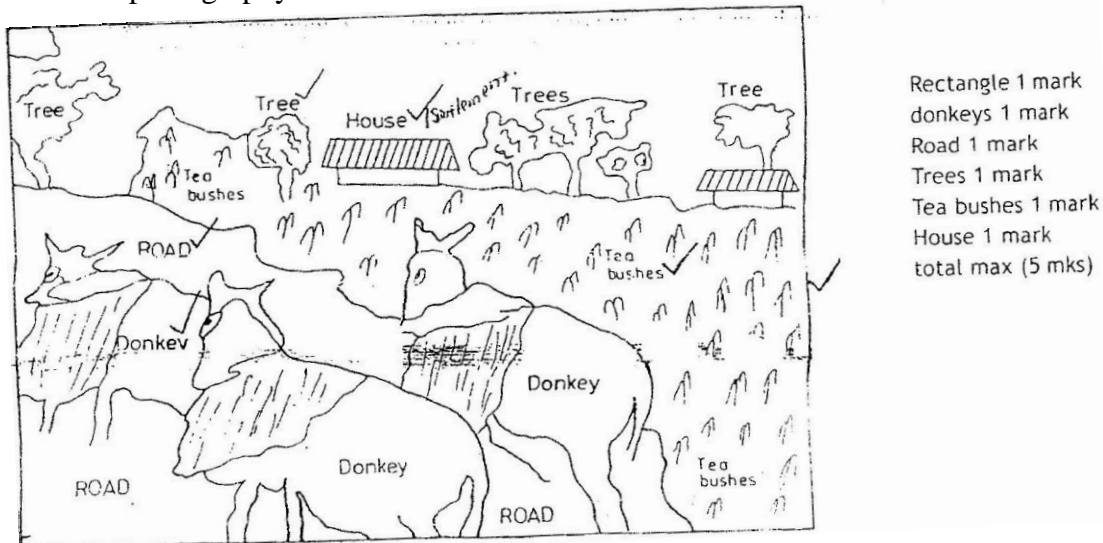
- i) The port marked p.  
 Quebec
- ii) The canal marked Q  
 New York State Barge Canal. Erie Canal
- iii) The lake marked B  
 Lake Ontario
- b) State three ways in which the Great Lakes and st. Lawrence sea way has contributed to the growth of industries in the region.
- It has increased (internal 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.



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 / tilled
  - 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 1 1/2-4 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
  - Baking
  - Graining milling
  - Meat canning / meat processing
  - Oil pressing / processing
  - Vegetable canning/ processing.
- b) Explain 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 Thika 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 facilitating 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 led 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 a car 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 force for which enhances efficiency in production.
- Japan has many sea ports which make 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 rugged 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 sea
- 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- 2200 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 gazetted 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

Period of harvesting is done throughout the year

Transportation mainly road transport

Canada

Harvesting is in winter and

Early spring

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 measures that should be taken to improve road transport in Kenya

- Construction of by-passes/ sub-ways/ tunnels/ flyovers/ underpasses to reduce congestion of the large towns
- Construction of highways/ dual-carriage roads expansion to accommodate more traffic/ improve traffic flow
- Repair/ maintain the roads in good 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 to 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/ silted river 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 sewage into rivers/ lakes
- Surface runoff/ 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 eutrophication/ water hyacinth/ water weeds/ alga
- (b) 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
  - Diverting tributaries to other rivers to reduce the volume
- (c) Explain how the following soil conservation methods are used 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.
- (d) 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 assess 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/volcanicity
  - 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;  $27-18 = 90^{\circ}\text{C}$
    - ii) The mean temperature for Saturday  

$$\frac{29 + 21}{2} = 250\text{C}$$
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
  - 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

Any 2x1 mks



- 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)  $-35^{\circ} 15'$  to  $35^{\circ} 25' / 10'$   
 ii) Map scale 1:  $\frac{50,000}{100,000}$  km  
 $= 0.5$  km  
 Statement scale is 1cm represents 0.5 km /  $\frac{1}{2}$  km  
 iii) Just over 2120 m and below 2140m  
 iv)  $10.5 - 11.0 \text{ km}^2$
- b) i)   
 • Scrub  
 • Woodland  
 • Scattered trees  
 • Thicket  
 • Papyrus/papyrus swamp vegetation Any 3x1 = 3mks  
 ii)  $305^{\circ}\text{C}$  ( $304^{\circ} - 306^{\circ}$ ) / N  $55^{\circ}$  ( $55^{\circ} - 56^{\circ}$ )  
 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 earth's 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 piling and new layers exert pressure on the lower layer
  - Lower layers become compressed/compacted as air is expelled from the spaces by snow 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 shore 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

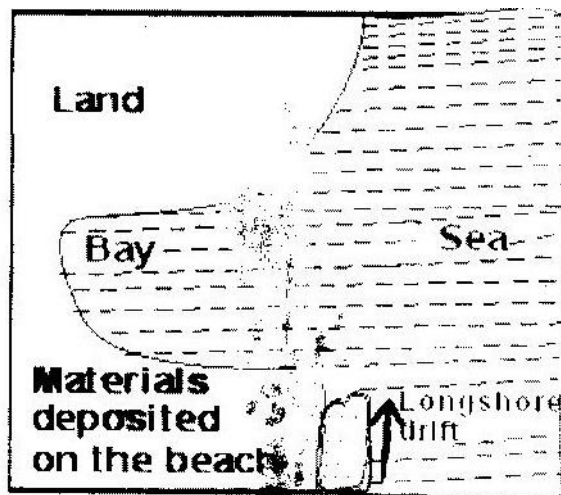
ii) **Depth of the sea**

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

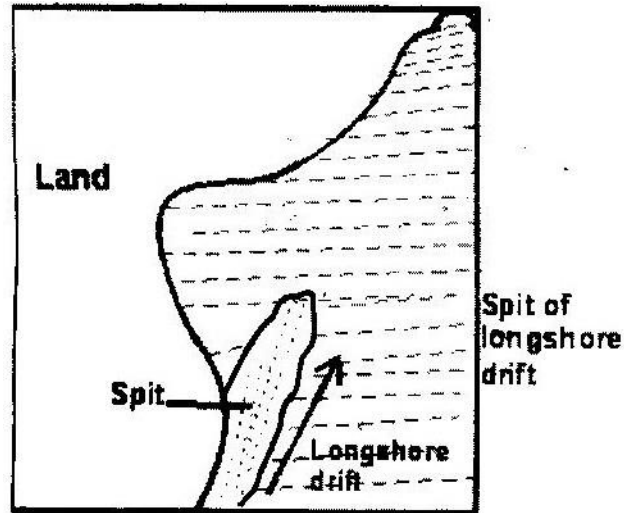
d) Using well labeled diagrams, describe how a bay bar is formed



**Stage 1**

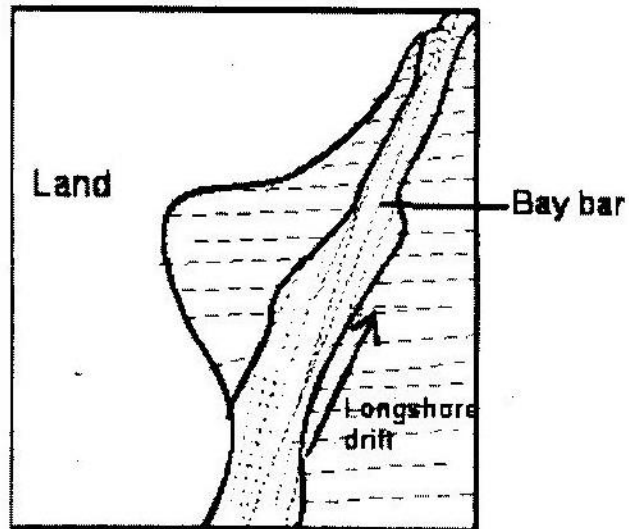
Longshore drift deposits materials at the entrance





**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 made 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  
 $= 1668446 \div 5$   
 $= 333689.2$  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 eyesore/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<sup>0</sup>C- 28<sup>0</sup>C
  - 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 sugarii)
  - Molasses
  - Bagasse
  - Wax
  - Aconitic acid
  - Filter cake/mud
- 10. a) i)
  - Canadaii)
  - 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 groundb)
  - 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  $30^0$ E 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  $10^0 \times 4$  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 Wet 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 Evapotranspiration / 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 facilitates 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



A geological map of the Vavilov River area. The map shows several geological units: a central unit labeled 'RV' (Vavilov River) with a cross-hatched pattern; units labeled 'E' (Eocene) with a grid pattern; and units labeled 'P' (Paleogene) with a stippled pattern. The map also shows structural features like faults and folds, indicated by dashed lines and arrows. The map is oriented with North at the top.

- 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 on the foot 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

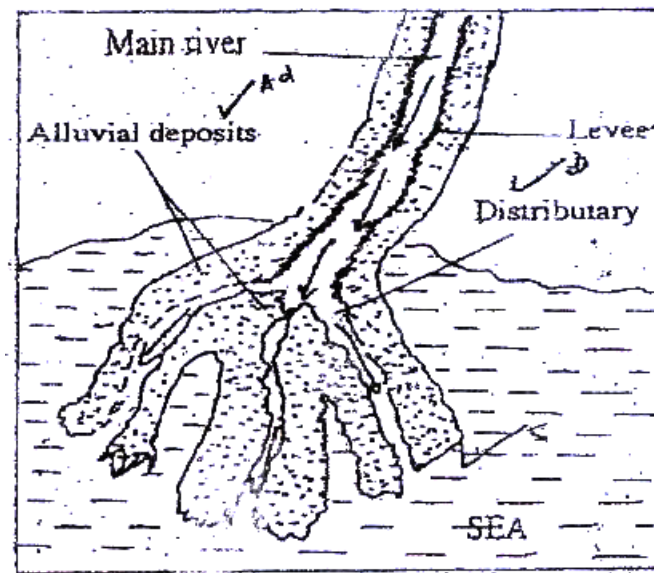


- When faulting occurs across a ridge it may provide a dip which could form a mountain pass where transport and communication lines can be constructed/ may hinder development of transport.

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 weak





- 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 coasts develop in tropical regions of the world/ fiord coasts 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 coast 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 shore 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 be 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 in the field study**

- Exposed rocks
- Ridges / cliffs
- Gullies/ washes/ gullies/ 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 Afforestation 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<sup>0</sup>C to 30<sup>0</sup>C/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. corn earworms/silk worms 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 hard 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 of 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.**
- Lightning
  - 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



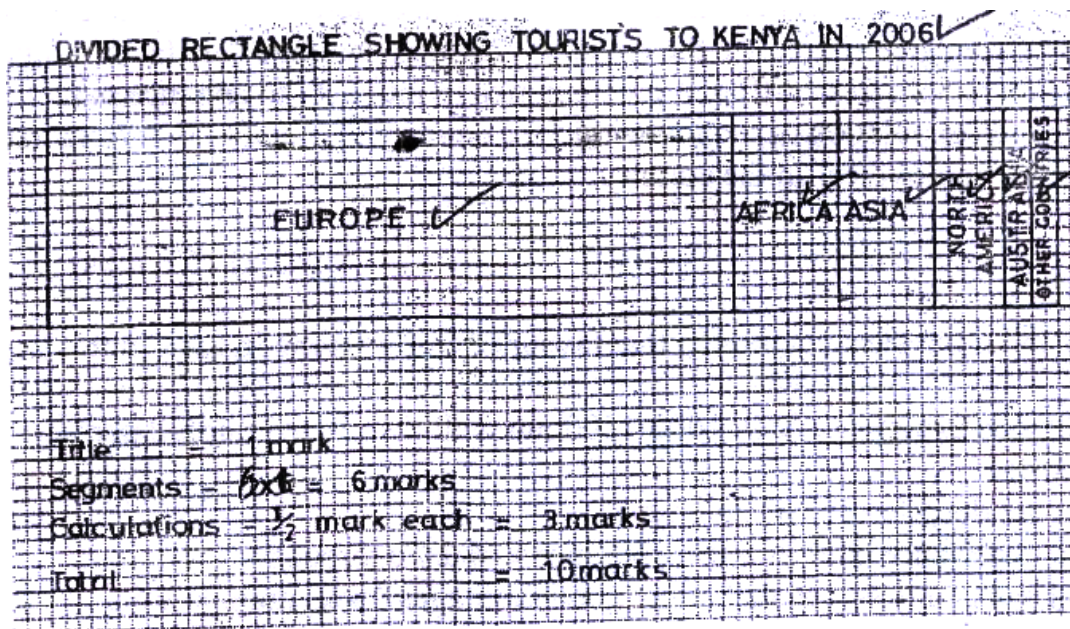
- a) i) which continent had the highest increase in the number of tourists visiting Kenya between 2005 and 2006?

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-  $\frac{965,000}{1,415,000} \times 15 = 10.2 \text{ cm } \frac{1}{2} / 10.23 \text{ cm}$

Africa-  $\frac{154,000}{1,415,000} \times 15 = 1.6 \text{ cm } \frac{1}{2} \text{ cm}$

Asia -  $\frac{128,000}{1,415,000} \times 15 = 1.4 \text{ cm } \frac{1}{2} / 1.09 \text{ cm}$



North America       $103,000 \times 15 = 1.1 \text{ cm } \frac{1}{2} / 1.09 \text{ cm}$   
1,415,000

Australia & New Zealand  $24,000 \times 15 = 0.3 \frac{1}{2} / 0.25 \text{ cm}$   
1,415,000

All other countries       $41,000 \times 15 = 0.4 \text{ cm } \frac{1}{2} / 0.43 \text{ cm}$   
1,415,000      (10 mks)

b) (i) **State two 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/interpret.

(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<sup>0</sup>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 week
- 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  $10^0\text{C}$
- 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 farming 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 Kenya.**

- 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 19<sup>th</sup> Century.**

- Availability of coal- iron ore as well as limestone from the Rhine valley provided raw materials needed in the industry.
- River Rhine/Ruhr/lippe/wupper/Escher provided water required for cooling machines in the industry/industrial use.
- The region is served by navigable rivers e.g. R. Rhine/ruhr/ 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 sub-headings**

- 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)



