

**K.C.S.E 2004 GEOGRAPHY PAPER 1  
MARKING SCHEME**

1. a) Loamy          Clay          Silty          Sandy          Gravel  
(Any 2x1 =2mks)
- b) Helps soil to retain moisture  
Aerates the soil  
It provides essential minerals to the soil  
It improves the soil texture/structure          Any 2x1=2mks
2. a) It is the angular distance north or south of the equator. It is an imaginary parallel line drawn from west to east and measured in degrees north or south of the equator.
- b) The earth rotates  $15^{\circ}$  in 1 hour so Hora will be a head by:  $40^{\circ}$  2hrs 40 mins  
(2mks)  
 $15^{\circ}$  so it will be 240 pm at Hora (2mks)
3. a) P-Joint R-Clint          1-Crike
- b) Rain water absorbs carbon dioxide to form a weak acid (carbonic acid)  
The rain falls on jointed limestone rocks  
The percolating rain water reacts with limestone rock to form calcium bicarbonate ( $\text{Ca}(\text{HCO}_3)_2$ ). (3mks)
4. a) i) This is a climatic condition in a restricted area due to small differences 3.g aspect, slope, vegetation and human landscapes (2mks)
- ii) It is a condition where the incoming solar radiation passes through the atmosphere while the outgoing terrestrial is blocked by the gases/ atmosphere making the earth retain most of the terrestrial radiation. This makes the earth to be warmer than it would have been or it is a condition where the atmosphere balances the incoming and out-going and out-going terrestrial radiation making the earth to retain optimum heat.  
Any 1 x2 =2mks.
- b) 

<b>Instrument</b>	<b>Element</b>
i) Rain gauge	Rainfall
ii) Thermometer	Temperature
iii) Barometer	Pressure
iv) Hygrometer	Humidity
v) wind vane	Wind Direction
vi) Anemometer	Humidity
vii) sun shine recorder	Sun shine (any 3x1=3mks)
5. a) A lake is an accumulation of water in a wide hollow or depression/it an extensive hollow in the earth's surface which contain water (Any 1x1= 1mk)
- b) By erosion  
By Earth Movements  
By vulcalnicity/ volcanic activity  
By human activity  
Mass movements e.g landslide          Any 3x1 =3mks

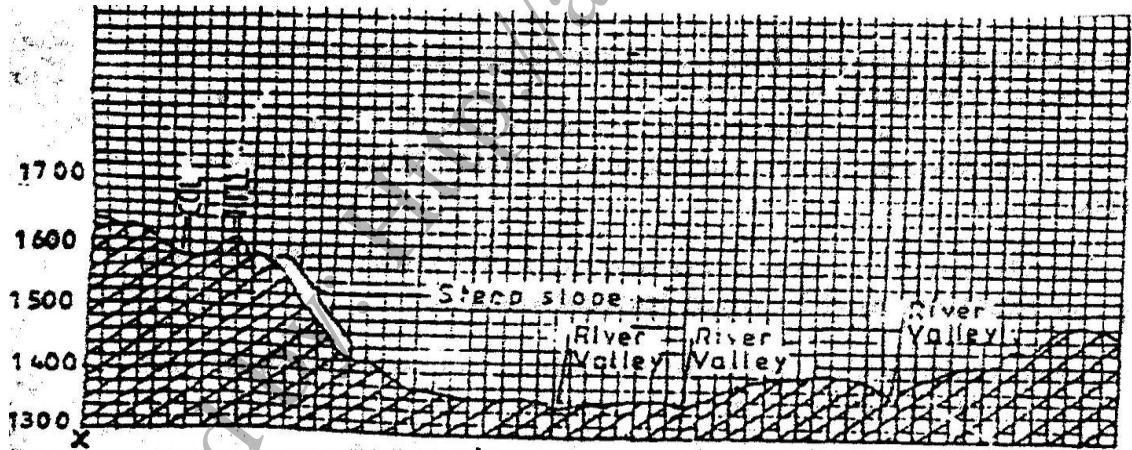
## SECTION B

6. a) i) Latitude-  $0^{\circ} 15' N$ , Longitude-  $35^{\circ} 30' E$   
 ii)  $8.5 km^2$  ( $8.0 - 9.0$ ) (2mks)
- b) i) Wattle  
 ii) Relief
- On the slopes of Keiyo escarpment there are thickets, forest and woodland.
  - The lowland areas/ low altitude areas support scrub and scattered trees
  - The high plateau area to the west have woodland, papyrus swamps.
- (Any 2x1 = 2mks)

### Human Activities

- Areas with human settlement have scattered trees and woodland
  - The forests are protected through creation of forests reserves e.g Tingwa hill forest.
  - On the western side of the map most of the natural vegetation has been cleared for wattle plantation.
  - Saw milling has reduced the size of natural forest in the west
- Any 2x 1 = 2mks

c) A cross section from x to y



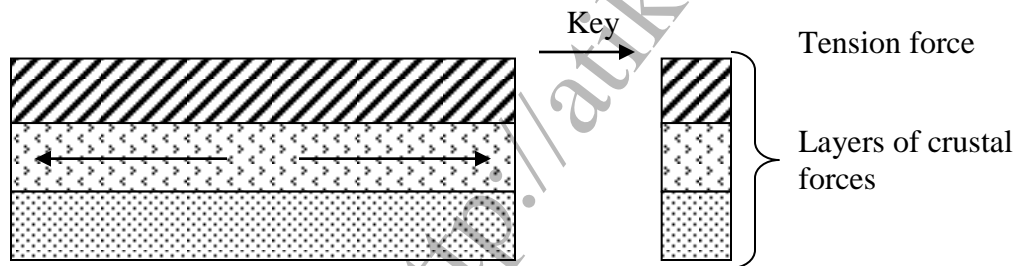
- (i) Title – 1mk Trend -1mk
- (ii) Labelling axis
- |            |               |
|------------|---------------|
| Horizontal | 1mk           |
| Vertical   | 1mk           |
| Features   | (1x 4) = 4Mks |

(iii)  $VE = \frac{V.S}{H.S}$

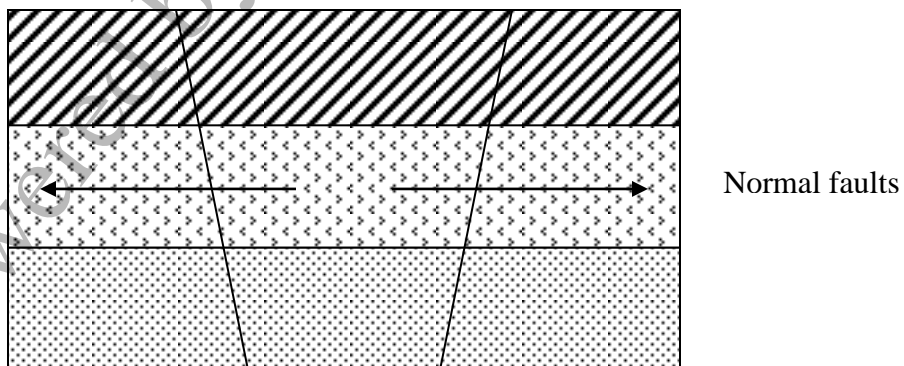
$$= \frac{1}{10000} \times \frac{50,000}{1}$$

$$= 5$$

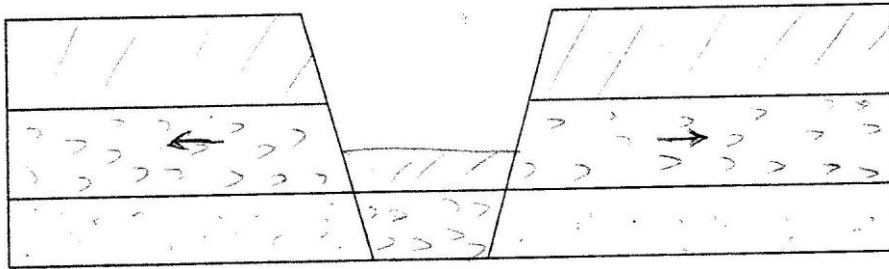
- d) (i) Motorable track  
Dry weather road  
Any 2x1 = 2mks
- (ii) Residential  
Communication  
Trading  
Health Services  
Transport  
Any 3 x 1 = 3mks
- 7a) i) Tilt block  
Escarpment/scrap slope  
Block mountain/ horsts  
Any 3x1
- (ii) Residential  
Communication  
Trading  
Health Services  
Transport  
Any 2x1=2mks



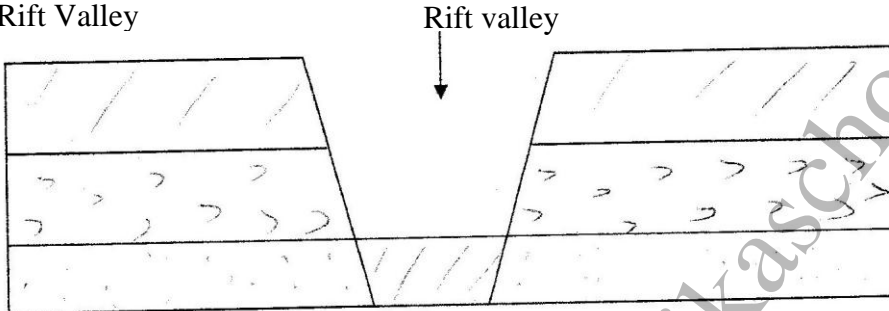
- Layers of rocks are subjected to tensional forces when there is some instability within the earth's crust.
- Parallel normal faults develop/lines of weakness develop.



The middle part gradually sinks/ subsides.



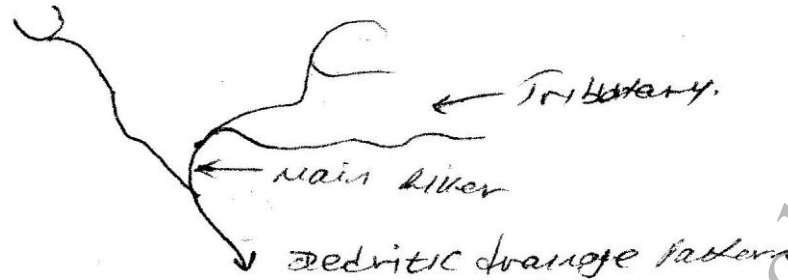
The sunken middle part forms a depression known as the Rift Valley  
Rift Valley



- b) Faulting / fault scraps make it difficult to construct roads/ railways.
- Depression in the Rift valley contain water that forms lakes
  - Faulting exposes minerals such as diatomite
  - Step faulting makes rivers to have water falls, rapids and cataracts
  - The scrap slopes / steep slopes tend to discourage settlement.
  - Some rivers such as the Katonga in Uganda have had their directions of flow changed. (Any 4 x 2 = 8 mks)
- c) i) To enable them draw up study objectives / hypothesis
- To familiarize themselves with the area of study
  - To enable them draw a route map
  - To enable them prepare a work schedule / plan of activities
  - To enable them identify / sort our relevant tools / equipment for the study
  - To identify suitable methods of data collection
  - To seek permission from the occupants of their site of study.
  - To enable them prepare financial (Any 4x1 = 4mks)
- d) i) -It is expensive
- It is time consuming
  - It is tiresome
  - It is limited only to direct sources / primary sources
  - It is only suitable to the signed people (Any 3x1 =3 mks)
- (a) Amount of precipitation / rainfall
- The nature of the slope of the land / of gradient of the land
  - The nature of the solid / the level of saturation
  - The nature of the underlying rocks
  - The amount of vegetation cover
  - The rate evaporation
  - Human activities (Any 4x1 = 4mks)

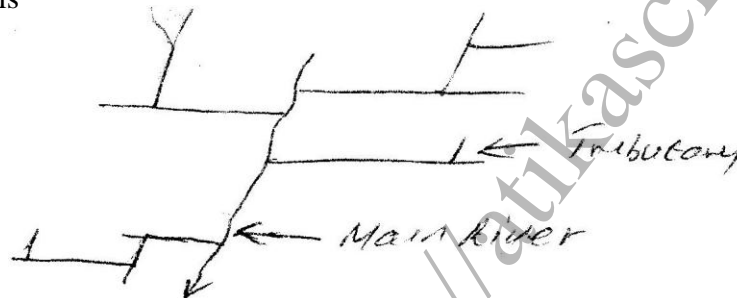
- b) The fine, materials are carried in suspension because they are light.  
The heavy materials are rolled / pulled along the bed of a river.  
(Any 3x2 = 6mks)

c) i) Dendritic



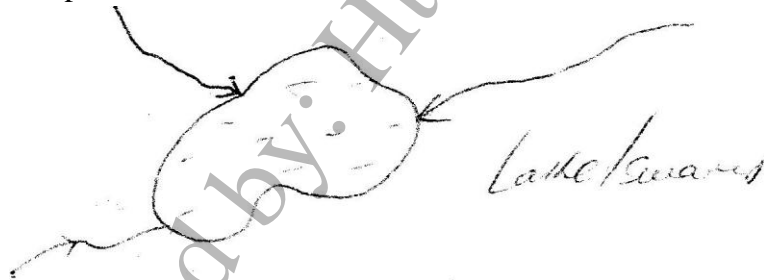
The river has many tributaries that join the main river at acute angles.  
The river and its tributaries form a pattern of a tree and its branches.

ii) Trellis



The main river has tributaries / streams that flow parallel to each other.  
The tributaries join the main river at right angles.

iii) Centripetal



Many rivers flow into a central basin from all directions.

- d) i) Stating the objectives / hypothesis of the study
- Identifying / selecting suitable methods of data collection.
  - Seeking permission from the relevant authority
  - Pre – visit the area of study
  - Reading relevant materials
  - Fixing the date for the study
  - Dividing themselves into groups and appointing group leaders.
  - Identifying / Selecting suitable methods of data analysis
  - Drawing a route map
  - Collecting relevant materials / tools to use (Any 5x 1 = 5mks)

- ii) Taking photographs
  - Interviewing resources persons
  - Estimating / measuring the height of the falls
  - Drawing the waterfall
  - Reading information brochures
- 9. a)i) X – Laccolith  
Z – Dyke
  - ii) Rocks beneath the crust are in a semi –solid state due to high temperature and high pressure.
    - When pressure decreases the rocks become semi- fluid and are known as magma.
    - Earth movements cause vertical or horizontal cracks in the rocks  
The molten rock / magma forces itself through the cracks / fissures.
    - When magma cools and solidifies in a horizontal crack or bedding plane it forms a feature called a sill. (4mks)
  - b) It has a vertical vent or pipe
    - It is composed of alternating layers of ash / and lave
    - It is conical in shape / steep sided
    - It has a side vents
    - It has conelets / parasitic cones on the sides
    - At the peak it may have a caldera / crater / plug ( Any 4x1 = 4mks)
  - c) Volcanic mountains are sources of rivers which provide water from domestic, industrial, transport and irrigation.
    - They influence the formation of relief rainfall that encourages agricultural activities.
    - Volcanic soils are suitable for agriculture.
    - Timber for construction / building industries
    - The volcanic mountains form beautiful sceneries that attract tourists.
    - Hot springs / geysers are used to generate geothermal
    - The crater lateres are fishing / breeding grounds for fish.
    - Volcanic rocks provides materials for construction / buildings.(Any 4x2 = 8mks)
  - d) There is no field laboratory where the rock samples can be analyzed.
    - Students do not have adequate skills to analyze the samples so there is need for expert opinion.
    - There is no adequate time in the field
    - To enable them build a collection of rock samples / future studies
    - It would expose more students to their findings through display of their findings.
    - To create interest / motivation and to deepen the understanding of the subject.(Any 4x1 = 4mks)
  - ii) Some students may have been cut / injured by the rocks
    - There may have been harsh weather / weather change.
    - Inability to collect the right samples.
    - Inaccessibility of some sample sites
    - The heavy weight of the rock samples (Any 2x2 = 4mks)

**GEOGRAPHY PAPER II 2004**  
**MARKING SCHEME**  
**SECTION A**

1. a) Climate / rainfall / temperature  
 Altitude Relief Aspect Soils / edaphic factors  
 Animals Human Activities Government policy  
 (Any 2x1 = 2 mks)
- b) Provide poles for construction / furniture making
- ❖ Source of fuel
  - ❖ For aqua – culture
  - ❖ For export / earn foreign exchange / income
  - ❖ The bark / fruits are a source of tannin (Any 3 x 1 = 3mks)
2. a) L – gas  
 M – Oil / petroleum  
 N – Water
- b) Wax  
 Bitumen / tar / asphalt  
 Sulphur  
 Lubricants / grease  
 Resin / petrol – chemicals (Any 2x1 = 2mks)
- 3 a) Sandy beaches  
 Marine life / wild life / mangrove forests  
 People culture (accept examples of cultures)  
 Coastal land forms e.g. caves / cliffs / Cora (Any 2x1 (2mks))
- b) They are tourist attraction  
 For education purposes/ research purposes.  
 For esthetic beauty  
 For posterity / for future generation  
 For preservation of culture (Any 3x1 = 3mks)
- 4a) Manufacturing is a process of changing raw materials into a finished product / commodity ready for use while tertiary industries provide services facilities for use by other industries / consumers.(any 2x1 = 2mks)
- b) Availability of coal / iron ore / raw materials  
 Cheap water transport on River Rhine  
 Availability of capital from rich merchants / krupp family / founders  
 Abundant sources of power such as coal / H.E.P.  
 Ready market from control / Western Europe / local market  
 Availability of water from river Rhine / lipper / Ruhr (Any 3x1 = 3mks)
- 5a) Presence of undulating landscape  
 Adequate water supply  
 Large tracks of land / expansion tracks of land  
 Adequate pasture for the animals (Any 3x1 = 3mks)
- b) Aberdeen Angus herefore  
 Charolais Red Angus  
 Short Horn Galloway  
 Santa Gertrudio

- 6a) ii) They allow ease in comparison interpretation.  
 They give clear visual impression  
 They are easy to read  
 They easily show the trend of the given data.  
 Easy to draw / construct (Any 2x1 = 2mks)
- b) 130,000  

$$\frac{-70,000}{60,000} \quad \frac{60,000}{70,000} \times 100 = 85.7 / 85 \quad 2\text{mks}$$
- c) Cool / warm climate / condition. 10°C to 28°C throughout the year  
 High rainfall/ 1000 – 2000 mm per year.  
 Well distributed rainfall through the year.  
 Areas that are frost – free  
 Deep light and well drained soils  
 Gently sloping / undulating land  
 Acidic / Volcanic soils / pH of 4 – 6  
 High altitude / 100 m – 2300m a.s.l (Any 5 x 1 (5mks))
- d) Delayed payments / low payments that lowers the morale of the farmers  
 mismanagement / Embezzlement of funds thus farmers are discouraged  
 Poor feeder roads in the tea growing areas lead to delays in collection / delivery of the green leaf hence wastage.  
 Adverse weather conditions such as long droughts / hail storms lead to destruction of the crop / lower production.  
 Fluctuation of prices in the world market makes it difficult for the farmer to plan ahead/ lower morale/ discourages farmers  
 High production costs due to high prices of farm inputs leads to lower yields since most farmers cannot afford to buy them  
 Pests/ Fungal diseases destroy crops. Reduce yields ( pests e.g. red spider-mites, weevils and beetles), termites, nematodes.  
 Inadequate/ unreliable transport facilities delays the collection/ delivery of green leaf reducing the quality.  
 Labour shortage/ expensive labour leads to low products/quality.
7. (a) (i) P- Kasese  
 Q – Butere  
 R - Kigoma  
 (ii) S- Maize / wheat/ Cattle/ / Coffee/ Passengers Any 1 x 1 = 1 mk  
 T- Soda Ash  
 (iii) U- Tanga ( 1mk)  
 V- Malawi/ Nyasa ( 1 mk)
- (b) (i) It is cheaper to construct/ Maintain  
 Roads are flexible/ provide door to door services  
 Roads can be used by a wide range of transport agents/ they are more Versatile  
 The roads are faster to use  
 There is greater demand for road transport than railway transport  
 Any 4 x 1 = 4 mks)



- (ii) Narrow – roads where heavy traffic limit ease of movement and overtaking the Pot- holed sections of the roads may cause tyre burst/ vehicle breakdowns/ may make drivers who are avoiding potholes crash the vehicles  
 The sharp beds may cause vehicles to veer off the roads/ stiff grade may make drivers to lose control of vehicles  
 The narrow bridges may cause vehicle to crash  
 Sub- standard surfaces may cause vehicles to skid/ overturn  
 Blurred/ missing road signs may make drivers lose control of vehicles  
 Unavailability of pedestrian paths/ sidewalks may cause pedestrians to walk on the road.  
 Dusty roads may reduce visibility leading to accidents  
 Muddy roads during the rainy season may cause vehicles to collide  
 Any 4 x 1 = 4 mks)
- (c) (i) Flowers: Roses/ Carnations/ orchids  
 Fruits: Oranges/ Mangoes/ avocados etc  
 Vegetables: French beans/ cabbages, etc Any 2 x 1 = 2 mks
- (ii) The horticultural crops are highly perishable thus necessitating faster means of transport  
 Some are light in weight which makes it easy/ suitable to export by air  
 There is high demand for the produce thus the need to supply urgently  
 High market prices are able to pay/ compensate for the airfreight charges Any 2 x 2 = 4 mks)
8. (a) (i) Central highlands  
 The Nyika Plateau  
 Coastal lowlands/ plains 5 mks)
- (ii) Nyando  
 Nzoia  
 Yala  
 Kuja/ Gucha Any 2 x 1 = 2 mks
- (b) The stagnant water become breeding ground for vectors that cause water related diseases.  
 Flood causes loss of property/ lives  
 Floods away crops leading to food shortages/ Famine  
 Floods wash away bridges/ roads/ telephone lines/ Air fields  
 Disrupting transport and communication  
 People are displaced by floods/ are made homeless Any 4 x 2 = 8 mks
- (c) (i) The presence in the environment of contaminants, which are injurious to human. Land plant and animal life 2 mks

- (ii) The garbage may result to foul smell/ air pollution, which is hazardous to human health.  
 When it rains, the dumped waste. Garbage is washed to rivers causing water pollution  
 Garbage can be a breeding ground for rodents/ flies/ cockroaches, which can cause disease outbreak e.g. plague  
 Accumulation of garbage leads to blockage of roads/ drainage systems  
 Garbage heaps are an eye sore as they make the environment ugly.  
 Oil spillage/ Industrial wastes leads to destruction of flora.  
*Any 3 x 2 = 6 mks)*
- (d) Burning waste materials  
 Digging pits for throwing rubbish  
 Minimizing use of harmful chemicals/ use of organic manure  
 Creating awareness on the dangers of land pollution and how to control it.  
 Recycling of waste materials/ treatment of industrial waste  
 Government legislation against dumping.  
 Setting up proper garbage collection/ management program.  
*Any 4 x 1 = 4 mks)*
- (a) (i) Nucleated/cluster  
 Scattered / dispersed  
 Linear  
*Any 2 x 1 = 4 mks)*
- (ii) Urban - Urban  
 Rural - Rural  
 Rural - Urban  
 International - External  
*Any 2 x 1 = 2 mks)*
- (iii) Retirement from formal employment in urban areas / retrenchment.  
 Lack of jobs in urban centers  
 Insecurity in urban centers/ high crime rate  
 The strategy of district Focus for Rural Development/ government policy.  
 Provision of infrastructure facilities in the rural areas/ social amenities.  
 Setting up industries in rural areas/ discovery  
*Any 3 x 1 = 3 mks)*
- (b) Insecurity leads to fear  
 Unemployment / idleness leads to high crime rate/ social evils  
 Inadequate housing has led to emergence of slums/ poor housing/ high rents limited land leading to limited urban extension.  
 Traffic congestion cause delays/ slows movement  
 Inadequate transport facilities leads to delayed movements/ long queues  
 Inadequate social amenities leads to congestion in hospitals/ schools/ water shortage / poor sanitation  
 High rate of crime leading to insecurity/ loss of proper life.  
*Any 4 x 2 = 8 mks)*

- (c) Leather tanning  
Tobacco treatment/ processing  
Textiles  
Cotton spinning  
Tanning industry

*Any 2 x 1 = 2 mks*

- (ii) The abundant water supply from river Chania which is used for industrial Purposes.  
The roads/ railway links/ accessibility have made it easy to receive raw materials and sell the industrial products.  
The high population around Thika provides ready market for the industrial products.  
The rich agricultural hinterland has provided raw materials for industries  
Nearness to Nairobi has led to industrial interdependence / ease of access to supplies.  
The government policy of decentralization of industries has encouraged the growth  
There is expensive flat land for setting industries

*Any 4 x 2 = 8 mks*

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