

**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° in 1 hour so Hora will be a head by: 40° 2hrs 40 mins
(2mks)
 15° 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)

Instrument	Element
i) Rain gauge	Rainfall
ii) Thermometer	Temperature
iii) Barometer	Pressure
iv) Hygrometer	Humidity
v) wind vane	Wind Direction
vi) Anemometer	Humidity
vii) sun shine recorder	Sun shine

 (any 3x1=3mks)
5. a) A lake is an accumulation of water in a wide hollow or depression/it an extensive hollow in the earth's surface which contain water (Any 1x1= 1mk)
- b) By erosion
By Earth Movements
By vulcalnicity/ volcanic activity
By human activity
Mass movements e.g landslide Any 3x1 =3mks

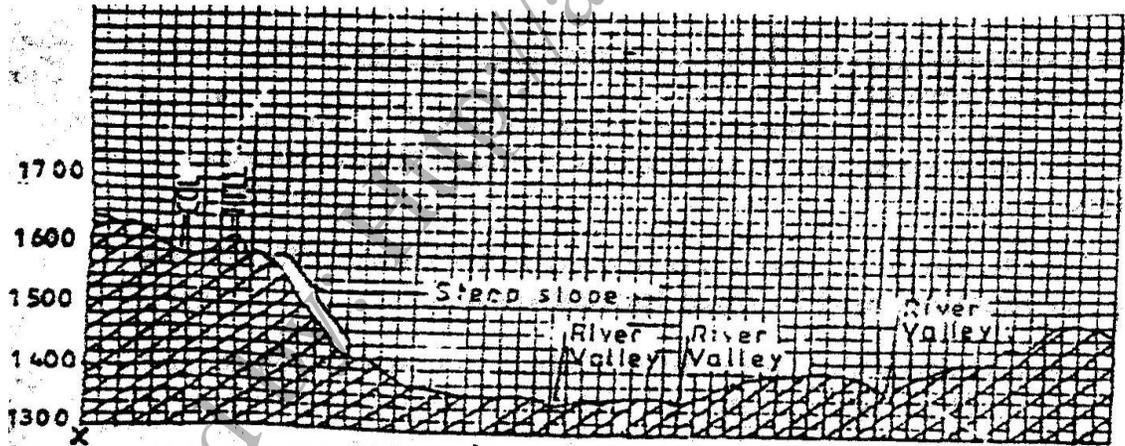
SECTION B

6. a) i) Latitude- $0^{\circ} 15' N$, 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



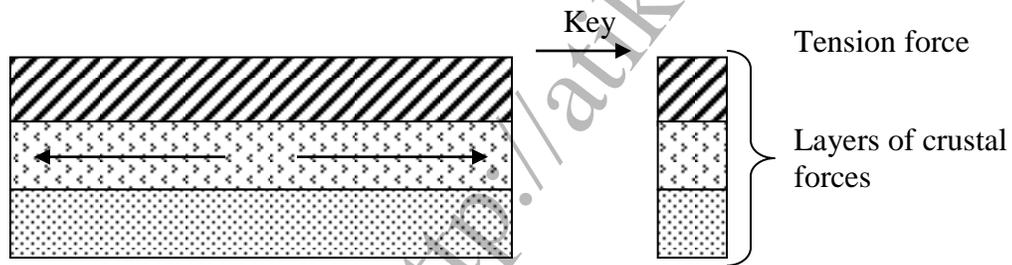
- (i) Title – 1mk Trend -1mk
- (ii) Labelling axis
- | | |
|------------|---------------|
| Horizontal | 1mk |
| Vertical | 1mk |
| Features | (1x 4) = 4Mks |

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

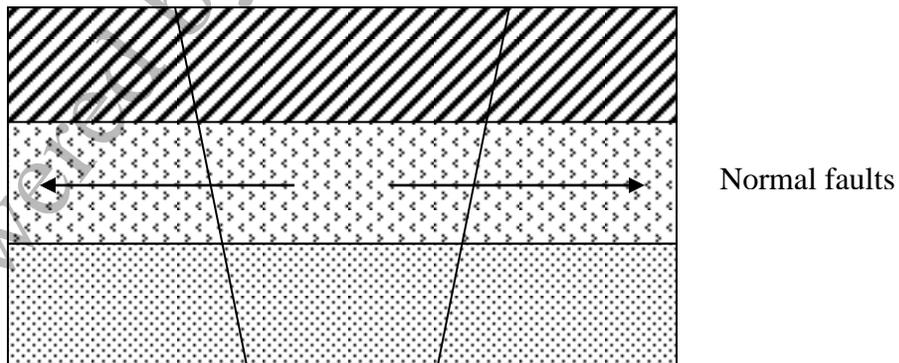
$$= \frac{1}{10000} \times \frac{50,000}{1}$$

$$= 5$$

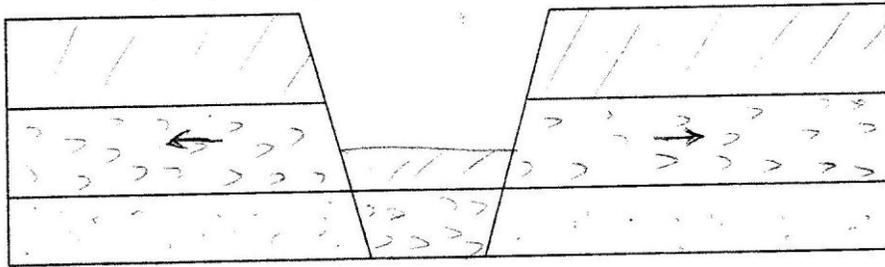
- d) (i) Motorable track
Dry weather road
Any 2x1 = 2mks
- (ii) Residential
Communication
Trading
Health Services
Transport
Any 3 x 1 = 3mks
- 7a) i) Tilt block
Escarpment/scrap slope
Block mountain/ horsts
Any 3x1
Any 2x1=2mks
- (ii) Residential
Communication
Trading
Health Services
Transport
Any 2x1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



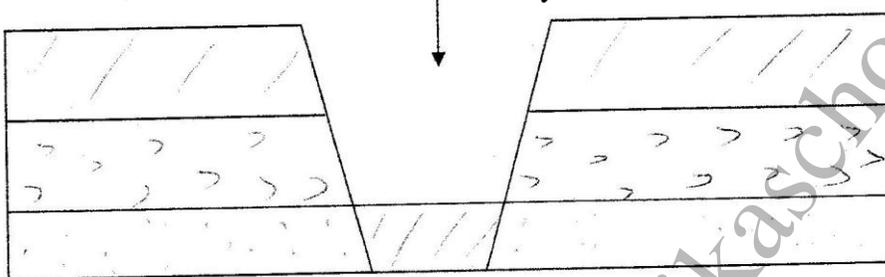
- Layers of rocks are subjected to tensional forces when there is some instability within the earth's crust.
- Parallel normal faults develop/lines of weakness develop.



The middle part gradually sinks/ subsides.



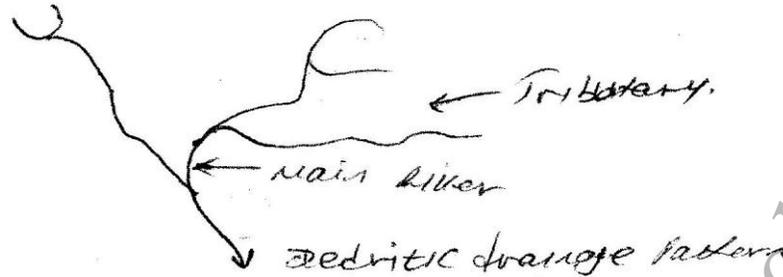
The sunken middle part forms a depression known as the Rift Valley
Rift Valley



- 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)

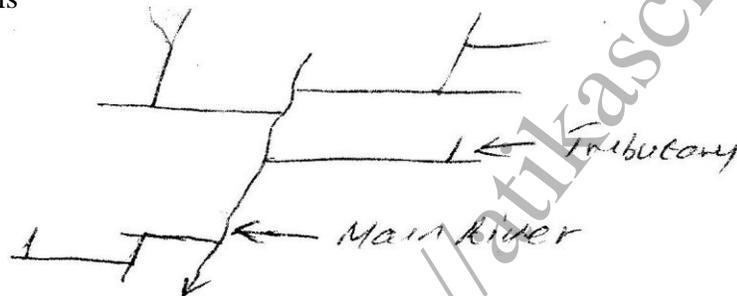
- b) The fine, materials are carried in suspension because they are light.
The heavy materials are rolled / pulled along the bed of a river.
(Any 3x2 = 6mks)

- c) i) Dendritic



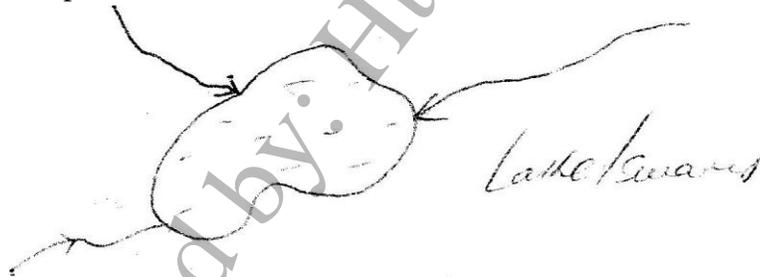
The river has many tributaries that join the main river at acute angles.
The river and its tributaries form a pattern of a tree and its branches.

- 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)

- 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

Powered by: [Http://atikaschool.org](http://atikaschool.org)