

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

1. (a)
- Temperature
  - Rainfall
  - Humidity
  - Wind
  - Atmospheric pressure
  - Cloud cover
  - Sunshine
- (b)
- Use of defective instruments
  - Human error
  - Interference with the instrument
  - Poor siting of weather station
  - Extreme weather conditions
  - Natural calamities
2. (a)
- Heavy rainfall/ high amount/ high intensity
  - Low rate of evaporation
  - Sloping ground/ steep slopes
  - Presence of impervious rocks/ soil surface
  - Bare surfaces/ absence of vegetation
- (b)
- X – Resistant rock/ sill/ caprock
  - Y – Plunge Dome
  - Z – Rock Boulder
3. (a)
- Rise in the sea level
  - Depression of the coastlands/ subsidence of the coastal lands
  - Flooding along the coast
- (b)
- Fjords
  - Rias /creeks
  - Islands
  - Estuaries
  - Sounds
  - Broad continental shelf

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

(b)	<u>Profile</u>	<u>Part of cross – section</u>
	R -----	Valley with papyrus swamp
	S -----	Flat topped hill
	T -----	Slope

5. (a)
- |         |                      |
|---------|----------------------|
| P ----- | Horn/ pyramidal peak |
| Q ----- | Arete                |
| R ----- | Hanging valley       |

- (a) By abrasion & plucking the valley is widened & deepened
- Pre- existing V- shaped valley is filled with ice
  - Glacier erode the V- shaped valley
  - The spurs are truncated

### SECTION B

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

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

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

- (d)
- There are few settlements in the forested areas
  - Most settlements are found along the roads and motorable tracks
  - There are few settlement along the rivers
  - The swampy area has no settlement
  - Karima hill has no settlement
  - There are no settlement on the ridges than on the valleys

- There are more settlement on the Eastern part than on the Western part of the area covered by the map/ higher parts fewer people than the lower parts
- There are clusters of settlements at shopping/ market centers
- East of easting 70 is densely settled
- The central part (btn Easting 60 – 70) is moderately settled
- West of Eastings 60 is sparsely populated ( 5 mks)

(b) (i) The area lies between 1700 and 1900 metres above sea level as indicated by the contours. This altitude allows coffee growing  
The area is well drained as indicted by the numerous ridges and the absence of swamps/sloping ground as evidenced by close contours

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

(5mks)

- (ii) Fishing  
Tading  
Quarrying  
Tourism  
Transportation  
Processing  
Forestry

7a)

**CONTRAST**

**Plutonic rocks**

- Form from magma
- Formed deep inside the crust/intrusive/ Extrusive
- Cools slowly
- Forms large cry/course grained
- Coarse textured

**Volcanic rocks**

- Form from lava
- Formed in surface
- Cools rapidly
- Forms small crystals
- Fine textured

(b)

- The lava is ultra basic/ extremely fluid / of low viscosity
- The lave flows over long distances spreading evenly over large areas before cooling
- The lava cools slowly forming an extensive plateau.
- The plateau may form through a series of eruption which results in thick layers of lava.

(c) (i)

- Hot springs
- Crater/Caldera /crate lake
- Volcanic cones/volcanic mountains
- Lava plateaus / plains lava
- Ash and cinder cones

- Plug domes / spines
- Fuma roles / solfatarata

(ii)

- Some volcanic features create barriers making the construction of communication lines expensive
- The rugged nature of volcanic landscape make settlement and agriculture difficult
- Volcanic mountain range create rain shadow effect which results into aridity
- Recent volcanic lava flows have poorly developed soils unsuitable for agriculture

(d) (iii)

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

iv) **A hammer**

- For breaking rocks for closer examination

**A polythene bag**

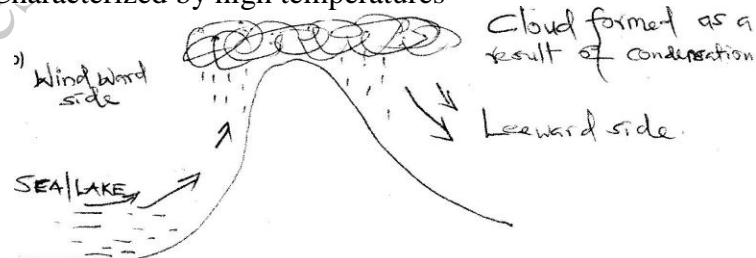
- For carrying samples for subsequent studies

8.

a)

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

b)



- A water body/ sea/ lake /is heated and causing evaporation of water
  - Moist air from the sea is forced to ascend up a hill/mountain-side
  - Forced ascent leads to cooling of air
  - The moisture in the air condenses forming clouds
  - Rainfalls mainly on the windward side of the hill/mountain
  - Descending air warms up the leeward side of the mountain
- Text -1mk                                  max-4  
Diagram` ½ mk each   max -2

c)

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

d)

- (i) Familiarize with the route  
Sample different areas with different climate/vegetation  
To identify pertinent areas to visit.
- (ii) Spatial                                  Non Spatial
- (i) It saves time
- (iv) It teaches learners the summary aspect of learning  
Saves energy since whole district not studied
- v) Tabulating      Tallying      Taking photography

9.

- (a)
- (i) Warping of land during volcanic activities in the rift valley
- (ii) Receive frontal rainfall (high)                                  Good soil for farming
- (b) They are served by inlet and outlet  
Little or no volcanic activities still going on
- (c) Fishing                                  Transport                                  Sports                                  Irrigation
- (d) (i) Deforestation: Rivers pouring water into lakes dry up as their sources are interfered with leading to low water levels in the lakes.

- (iv) Industrialization: Water matter/ sewage is let to is let to spill in lakes  
polluting the water.
- (v) Water weeds      Depletion of fish bleeding grounds affected transportation

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

1.
  - The trees are conical in shape
  - They occur in pure stands
  - They grow tall and straight
  - They have needle-like leaves
  - They bear cones
  - The forests are evergreen
  - The forest have no undergrowth
  - The trees have thick barks
  - They have shallow roots
  
2. (a)
  - Devegetation clearing of vegetation/ deforestation
  - Overgrazing/ overstocking
  - Fire outbreak
  - Over cropping / monocropping/ monoculture
  - Ploughing across the contours/ up-down the slope ( along slope)
  - Mining/ quarrying
  - Cultivating along banks

(b)

  - To maintain source of food supply/ maintain soil fertility
  - To preserve genetic resources
  - Protecting water catchments areas/ for aesthetic value
  - For preventing desertification
  - To sustain sources of raw materials for industries
  - To preserve cultural heritage
  - For medicinal value
  - For keeping air clean
  - For maintaining natural habitat for wild animals and plants
  - Modification of climate
  
3. (a)
  - High temperature /  $20^{\circ} - 27^{\circ}\text{C}$  throughout the year
  - High rainfall (1200 – 1500mm)
  - Undulating / Flat land
  - Fertile soils – Alluvial/ clay/ black cotton
  - Well drained
  - Deep soils

- (b)
- Burning of cane by arsonists/ fire outbreak
  - Delays in harvesting of sugar cane
  - Flooding of the local market with cheap imported sugar
  - Delayed payment to farmers
  - Poor management of sugar cane factories/ cooperatives
  - High cost of farming inputs
  - Diseases ratoon stunting diseases/ smut/ mosaic/ yellow wilt/ leaf spot
  - Over production
  - Pest- white scales/ white grubs/ termites
  - Competition for land from other crops
4. (a)
- Central/ commercial business district
  - Residential zone
  - Manufacturing / industrial zone
- (b)
- It would help to ease traffic congestion
  - It would help save fuel/ petrol
  - Have room for parking required
  - Financial saving will be realized/ government save forex (less imports by commuters)
5. (a)
- Water/ tides/Biomass
  - Wind/ water/ charcoal
  - Drought/ Sun/ Animals
  - Steam/ steam/ Geothermal / Hot springs
- (b)
- Inadequate capital to invest in coal mining
  - The low local demand for coal
  - The coal reserves are found far from the potential market/ remote areas
  - Availability of cheaper alternative sources of energy/ oil/ Hep
  - Poor quality of coal
  - Low quantities of coal reserves

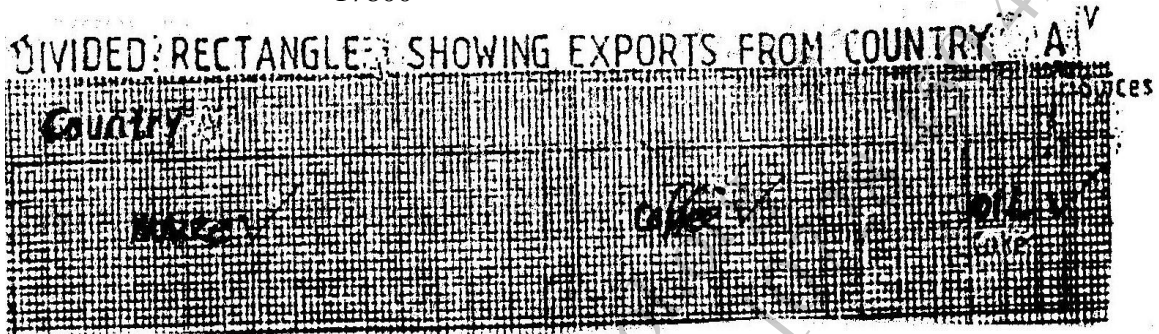


**SECTION B**

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

(ii) A-  $\frac{750 \times 100}{24900} = 3.01\% / 3.012\% / 3.00\%$

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



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

**Country A**

**Maize**

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

**Coffee**

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

**Oil cakes**

$\frac{1560 \times 15}{24900} = 0.93 \text{ cm} / 0.939 / 0.94 / 0.9$  ( ½ mark)

**Spices**

$\frac{750 \times 15}{24900} = 0.45 \text{ cm} / 0.451 / 0.5 / 0.452$  ( ½ mark)

- (c)

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

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

(d)

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

7.

(a)

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

(b)

- Reclamation creates more land for agriculture / settlement
- Reclaimed land has improved agricultural output hence more food
- More raw materials for industries

- Land reclamation has resulted in improved fresh water/ supply for domestic and industrial use/ irrigation
- Construction of dykes/ walls around the polders has helped control floods/ sea invasion
- Construction of dykes and canals has improved road transport network
- Reclamation has created sceneries that have become tourists attractions
- Improved social amenities
- Reclamation and associated activities have created more employment opportunities and improved the standard of living of citizens

(c) (i)

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

(ii)

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

8.

(a)

- Diversity- to diversify her economy
- Employment - to create more employment opportunities
- Self sufficiency- For self sufficiency/ reduce importation/ save foreign exchange
- Use resources – To make maximum use of her resources/ raw materials

- Standard of – To uplift the standard of living of the citizens
- Value/ quality – to be able to increase the value of her exports/ quality
- B.O – To improve balance her trade

(b)

- Water is used for cooling machines to avoid damage by heat
- Some industries require water as a medium through which they dispose off their waste materials / heat
- Water is used for grading of coffee beans
- Some industries located near large rivers which provided power to turn the machines
- Cheap means of transport
- Some industries such as breweries use water as a raw material
- Water is needed in industries for cleaning e.g
  - (i) Raw materials as part of processing / improve the quality of the final product/ fermentation to improve quality/ pulp and paper making/ clean forms
  - (ii) The finished products to make them presentable / attractive
  - (iii) Machines as part of normal maintenance

(c) (i)

- It would encourage regional equality development / Dev. of infrastructure social amenity in rural areas
- It would create employment in the rural areas
- It would reduce rural – urban immigration
- It would allow greater exploitation of local resources
- Reduces risks during calamities
- Reduce strain on social amenities in urban centers
- It would raise the standard of living of people in rural areas
- It would help reduce congestion in urban centers

(ii)

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

(d)

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

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

9. (a) (i)

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

(ii)

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

*Any 2 x 1 = 2 marks)*

(b)

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

Complete comparison 2 marks each

(c)

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

(d) (i)

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

(ii)

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

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

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