10.0 GEOGRAPHY (312)

The year **2009 KCSE Geography** examination was presented in two papers: **paper 1 (312/1)** covers the **"physical geography and map reading"** while **paper 2 (312/2)** examines **"Human and economic geography, photographic interpretation skills and simple arithmetic calculations".** Each of the two papers had ten (10) questions.

This report analyses the performance of candidates in the year 2009 Geography examination papers, paying special attention to the poorly performed items. It looks at what the questions tested, the candidates' weaknesses and possible reasons for their poor performance. It also gives advice to Geography teachers with the aim of improving future performance in the subject.

10.1 GENERAL CANDIDATES' PERFORMANCE

The table below shows the overall performance in Geography over the period **2006** to **2009**

Table 15: candidates overall performance in Geography for the last four years.

Year	Paper	Candidature	Maximum Score	Mean Score	Standard Deviation
2006	1		100	46.12	19.23
	2		100	37.32	15.74
	Overall	**97,991**	**200**	**83.44**	**33.00**
2007	1		100	45.50	19.82
	2		100	48.14	16.37
	Overall	**103,288**	**200**	**93.62**	**34.00**
2008	1		100	35.91	17.10
	2		100	38.08	16.35
	Overall	**109,745**	**200**	**74.01**	**31.92**
2009	1		100	33.29	16.54
	2		100	42.56	15.87
	Overall	**112,446**	**200**	**75.73**	**30.88**

The following observations can be made from the table above:

10.1.1 The candidature increased from **109,745** in 2008 to **112,446** in 2009.

10.1.2 There was an improvement in performance in paper **2 (312/2)** from a mean of **38.08** in 2008 to **42.56** in 2009. However, there was a drop in performance in **paper 1 (312/1)** from a mean of **35.91** in 2008 to **33.29** in 2009.

10.1.3 The improvement in the performance of **paper 2** to a mean of **42.56** led to the increase in the overall mean to **75.73** in 2009 from **74.01** in 2008.

10.1.4 The best performance over the four year period was in the year 2007 which had an overall mean of **93.62.**

10.1.5 The standard deviation in both papers shows a reasonable spread of candidates' scores.

Although the overall performance improved, some questions were performed poorly. These will be discussed in the following section.

10.2 PAPER 1 (312/1)

The performance of candidates in this paper declined from a mean of **35.91** in **2008** to **33.29** in the year **2009.** This report looks at questions 6(a) and 9 (b) which were performed poorly.

Question 6

(a) i) Name the three districts crossed by the all-weather road (bound surface) in the north-western part of the map extract.

ii) Using the marginal information, give the magnetic variation of the area when the map was drawn.

iii) Measure the shortest distance along the loose surface road from the junction at Marumbasi (grid reference 286548) to the school at Chebirbei (grid reference 344518). Give your answer in kilometres.

Weaknesses

Some candidates were not able to measure the distance and give the answer in the correct units.

Expected response

(a) i

- Kisumu District
- Homa Bay
- Kericho

ii $2^0 33'$

iii 8.5 (+/- 0.1) km.

Advice to teachers

This was a question that tested the skills of locating places on a map, measuring distances and reading the marginal information in map reading. Teachers should ensure that they teach the candidates these skills and practice on them.

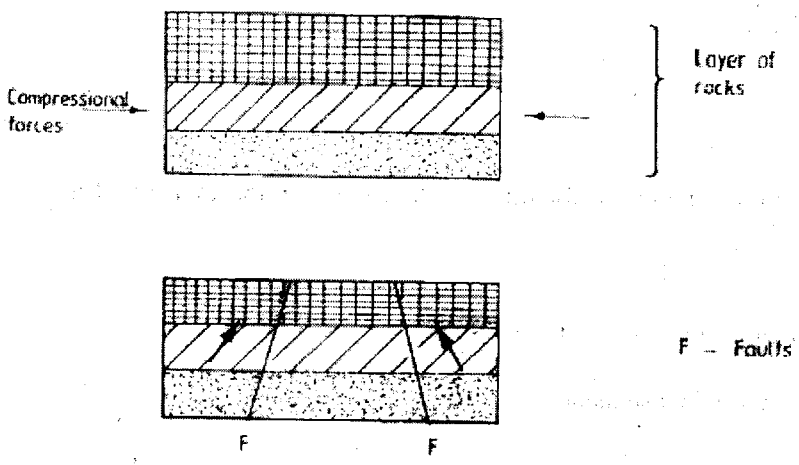
Question 8 (b)

With the aid of diagrams, describe how compressional forces may have led to the formation of the Great Rift Valley.

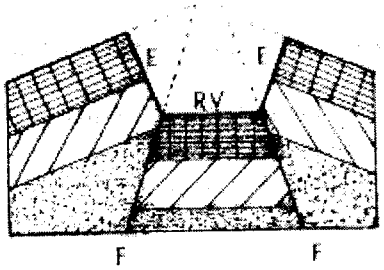
Weaknesses

The candidates were not able to draw diagrams and they were also not able to show the steps in the text.

Expected response



Two parallel lines of weakness develop and these form reverse faults.



R V – Rift valley
F – Fault
E – Removed by erosion

- Layers of rocks are subjected to compressional forces
- Two parallel lines of weakness develop and these form reverse faults
- Compressional forces may push the outer blocks towards each other
- The outer blocks ride over the middle block
- The sunken middle part forms a depression called a rift valley.

Advice to teachers
The teachers should always ensure that candidates draw good and clear diagrams when required. The candidates should also be taught how to follow the steps in the formation of geographical features.

10.3 PAPER 2 (312/2)

The performance of candidates in this paper improved from a mean of **38.08** in **2008** to **42.56** in the year **2009.** This report looks at questions 3 (a) and 7 (b) which candidates had problems answering.

Question 3 (a)
Outline three physical factors that favoured the development of the Seven Forks hydro-electric power scheme.

Weaknesses
The candidates were not able to give specific information required in a case study.

Expected responses
- Presence of hard basement rock.
- Presence of large volume of water from River Tana.
- Presence of water falls/rapids/deep gorges.
- Regular/constant flow of the River Tans.
- Presence of impervious rock.

Advice to teachers
In the case of case studies, specific information is required, for this question the mention of River Tana was crucial in the answers.

Question 7 (b)
Describe the stages involved in coffee production from picking to marketing.

The candidates were required to describe the stages in a sequence.

Weaknesses
The candidates left out crucial stages and the ones mentioned were not in a sequence.

Expected responses
- 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 unripe/diseased berries.
- The berries are graded into Grade A and B.

- 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 weak.
- 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 100°C.
- The beans are ground into powder and packed ready for sale.

Advice to teachers
The teachers must emphasize the importance of sequence in such a question.

10.4 GENERAL COMMENTS

10.4.1 Teachers should effectively cover the syllabus within the time allocated.

10.4.2 Teachers should desist from using unapproved revision materials and set standard tests for revision.

10.4.3 The teachers should teach their students to understand the rubric and follow it.

10.4.4 The teachers should train the students to avoid using a generalised approach to answer questions based on case studies.

10.4.5 There is need to in-service geography teachers to handle the syllabus.

29.8 GEOGRAPHY (312)

29.8.1 Geography Paper 1 (312/1)

SECTION A

*Answer **ALL** the questions in this section.*

1 *(a)* Differentiate between the processes of the formation of plutonic rocks and volcanic rocks. **(2 marks)**

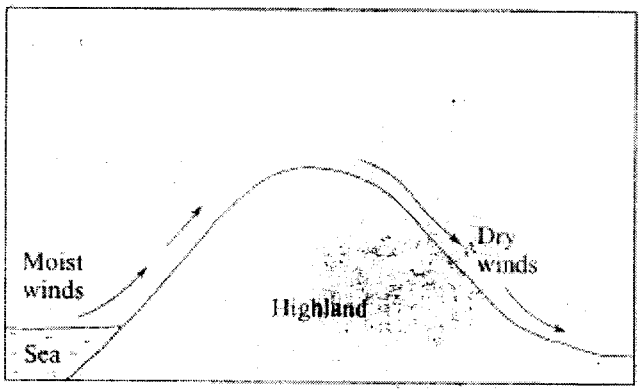
(b) For each of the following sedimentary rocks, name the resultant rock that forms after metamorphism:

(i) Sandstone **(1 mark)**

(ii) Limestone **(1 mark)**

(iii) Clay **(1 mark)**

2 Use the diagram below to answer the question that follows.



Outline the process through which the moist winds shown go through to eventually become dry winds. **(5 marks)**

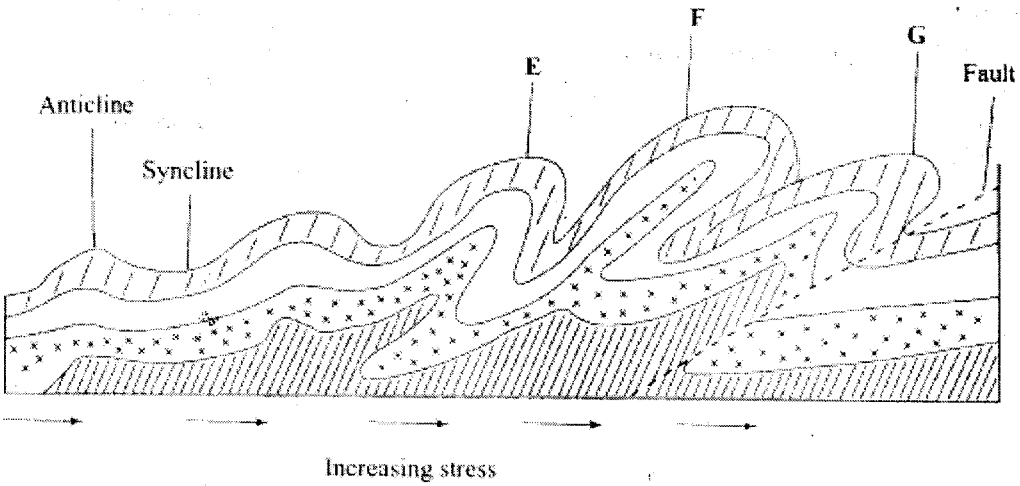
3 *(a)* What is a line of longitude? **(2 marks)**

(b) What is the local time at Alexandria 30°E when the local time at Malindi 40°E is 12.00 noon? **(2 marks)**

4 *(a)* Outline the steps followed when measuring humidity using a hygrometer. **(3 marks)**

(b) Give **two** factors that influence relative humidity. **(2 marks)**

5 The diagram below shows some types of folds. Use it to answer question *(a)*.



(a) Name the types of folds marked **E**, **F** and **G**. (3 marks)

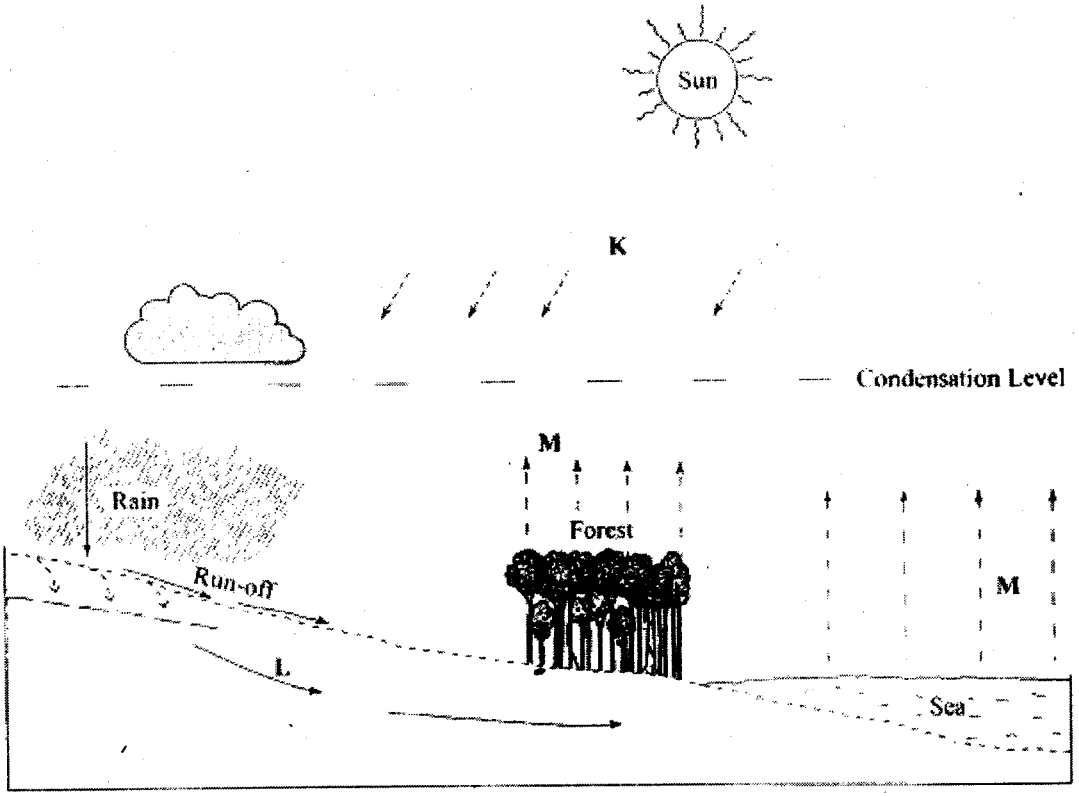
(b) In which countries are the following fold mountains found?

(i) Andes (1 mark)

(ii) Cape Ranges (1 mark)

(iii) Alps (1 mark)

7 The diagram below shows a hydrological cycle.



(a) (i) What do the arrows labelled **K**, **L** and **M** on the cycle represent? (3 marks)

(ii) Explain **three** factors that influence the occurrence of surface run-off (6 marks)

(b) (i) What is mass wasting? (2 marks)

(ii) Give **two** processes of slow mass movement. (2 marks)

(iii) State **two** physical conditions that may influence landslides. (2 marks)

(c) Describe the following processes of mass wasting:

(i) rock fall; (2 marks)

(ii) subsidence; (2 marks)

(iii) mud flows. (2 marks)

(d) Explain the effect of mass wasting on the following:

(i) Tourism. (2 marks)

(ii) Soil fertility. (2 marks)

8 *(a)* (i) Name **three** types of faults. **(3 marks)**

(ii) Apart from compressional forces, explain **two** other processes that may cause faulting. **(4 marks)**

(b) With the aid of diagrams, describe how **compressional** forces may have led to the formation of the Great Rift Valley. **(8 marks)**

(c) Explain **five** ways in which faulting is of significance to **human activities**. **(10 marks)**

9 *(a)* (i) Apart from Bird's Foot delta, name **two other** types of coastal deltas. **(2 marks)**

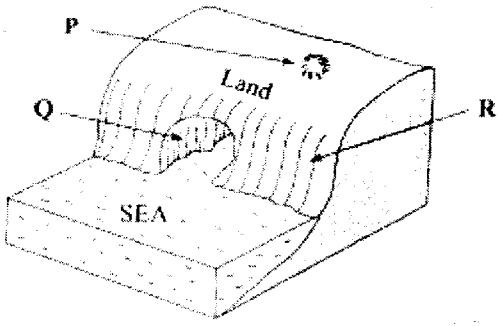
(ii) Draw a diagram to show a Bird's Foot delta. **(3 marks)**

(iii) Describe how a Bird's Foot delta is formed. **(4 marks)**

(b) Explain **four** factors that influence the development of coasts. **(8 marks)**

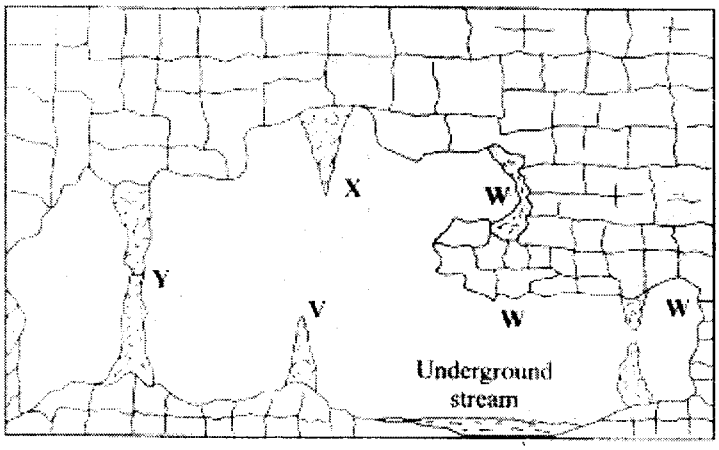
(c) (i) Differentiate between a barrier reef and a fringing reef? **(2 marks)**

(ii) The diagram below represents some coastal features. Name the features marked **P**, **Q** and **R**. **(3 marks)**



(iii) State **three** conditions necessary for the formation of a beach. **(3 marks)**

10 The diagram below represents underground features in a **limestone** area. Use it to answer question *(a)*.



(a) (i) Name the features marked **X**, **V** and **W**. **(3 marks)**

(ii) Describe how the feature marked **Y** is formed. **(6 marks)**

(b) (i) What is an artesian basin? **(2 marks)**

(ii) Explain **three** factors which influence the formation of features in limestone areas. **(6 marks)**

(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 study. **(3 marks)**

(ii) Name **two** erosional features you are likely to **identify** during the field study. **(2 marks)**

(iii) State **three** recommendations that you would make from your study to assist the **local** community to rehabilitate the eroded area. **(3 marks)**

29.8.2 Geography Paper 2 (312/2)

SECTION A

*Answer **all** the questions in this section.*

1 (a) Name **two** exotic species of trees planted in Kenya. (2 marks)

(b) State **three** reasons why it is necessary to carry out afforestation programmes in Kenya. (3 marks)

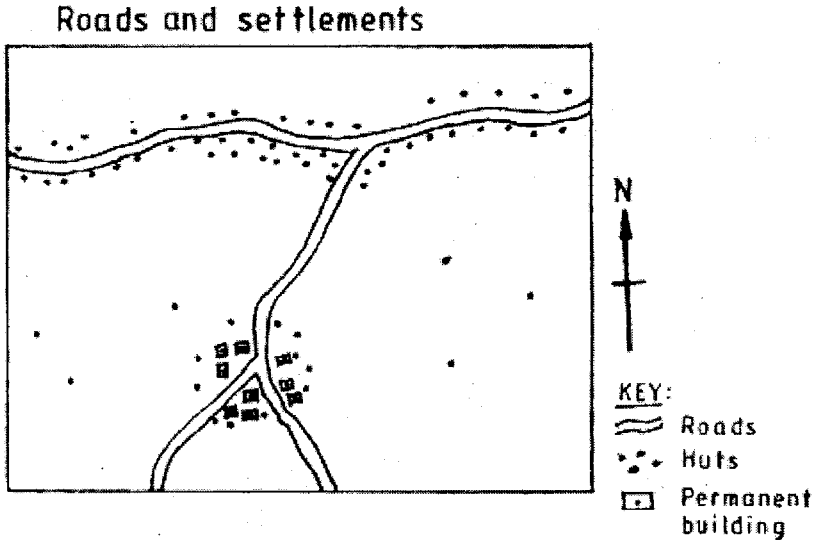
2 (a) Give **thee** physical conditions that favour maize cultivation in Trans Nzoia District in Kenya. (3 marks)

(b) State **three** problems facing maize farming in Kenya. (3 marks)

3 (a) Outline **three** physical factors that favoured the development of the Seven Forks hydro-electric power scheme. (3 marks)

(b) State **two** problems facing hydro-electric power projects in Kenya. (2 marks)

4 Use the sketch map below to answer question (a).



(a) Name the main settlement pattern in:

(i) the northern part of the area represented by the sketch map; (1 mark)

(ii) the southern part of the area represented by the sketch map. (1 mark)

(b) State **two** ways in which government policy may influence the distribution of human settlements. (2 marks)

5 (a) Apart from windstorms, name **two** other **environmental** hazards associated with climatic conditions. (2 marks)

(b) State **three** problems caused by windstorms in Kenya. (3 marks)

SECTION B

*Answer **question 6** and any other **two questions** from this section.*

6 The table below shows the number of tourists who visited Kenya from various parts of the world in 2005 and 2006. Use it to answer questions (a) and (b).

Place of Origin	No. of tourists per year	
	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? (2 marks)

(ii) Calculate the percentage increase of tourists from Australia & New Zealand between 2005 and 2006. (2 marks)

(iii) Draw a divided rectangle 15cm long to represent the number of tourists that visited Kenya in 2006.
Show your calculations. (10 marks)

(b) (i) State **two** advantages of using divided rectangles to represent geographical data. (2 marks)

(ii) Give **four** reasons why in 2005 and 2006 there were more tourists visiting Kenya from Europe compared to those from other parts of the world. (4 marks)

(c) Give **five** reasons why domestic tourism is being encouraged in Kenya. (5 marks)

7 (a) State **three** physical conditions that favour coffee growing in the central highlands of Kenya. (3 marks)

(b) Describe the stages involved in coffee **production** from picking to marketing. (8 marks)

(c) Explain **four** problems facing coffee **farming** in Brazil. (8 marks)

(d) Your geography class carried out a field study on a coffee farm.

(i) State **four** methods the class may have used to collect data. (4 marks)

(ii) During the field study, the class collected data on quantities of coffee produced from the farm in the last five years.

State **two** methods that the class may have used to present the data. (2 marks)

8 (a) (i) What is visible trade? (2 marks)

(ii) List **three** major imports to Kenya from Japan. (3 marks)

(b) Explain **four** factors that influence internal trade in Kenya. (8 marks)

(c) State **four** ways in which trade is of significance to Kenya. (4 marks)

(d) Explain **four** benefits which member states of ECOWAS derive from the formation of the trading bloc. (8 marks)

9 (a) (i) Name **three** agricultural non-food processing industries in Kenya. **(3 marks)**

(ii) State **four** ways in which Kenya has benefited from the motor-vehicle assembly industry. **(4 marks)**

(i) State **two** reasons why it would be necessary for you to visit the area of study in advance. **(2 marks)**

(ii) For your field study you have prepared a work schedule. State **two** items you would include in the schedule. **(2 marks)**

(iii) Give **two** advantages of studying about furniture making through fieldwork. **(2 marks)**

(c) Compare the ports of Mombasa and Rotterdam under the following sub-headings:

(i) site; **(2 marks)**
(ii) transport links to the interior; **(2 marks)**
(iii) the hinterland; **(2 marks)**
(iv) port facilities. **(2 marks)**

(d) Explain **two** ways in which urbanization negatively affects the surrounding agricultural areas. **(4 marks)**

30.8 GEOGRAPHY (312)

30.8.1 Geography Paper 1 (312/1)

SECTION A

1. (a)

Plutonic rocks form from magma which cools 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. ***(2 marks)***

(b)

- Sandstone - Quartzite/State ***(1 mark)***
- Limestone - Marble ***(1 mark)***
- Clay - State/Schist ***(1 mark)***

2.

The moist air which is lighter (forced) ascends the highland/the moist air is subjected to orographic force.

- The forced ascent leads to the expansion of air.
- The moisture in the air condenses forming clouds.
- Descending air (on the lee ward side) is dry wind. ***(5 marks)***

3. (a)

It is a line based on 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 North Pole to South Pole and is measured in degrees east or west of the Prime Meridian (0^0).

(b)

- The difference in degrees of longitude between Alexandria and Malindi is $40^0 - 30^0 = 10^0$
- The difference in time between 1^0 longitude is 4 minutes
- So the total difference in time between the two towns is 10^0 x 4 minutes = 40 minutes
- Alexandria is to the 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 a.m.

4. (a)

- Read (and record) the temperature of the wet bulb thermometer
- Read (and record) the temperature of the dry bulb thermometer
- Calculate the difference in temperature readings between the wet and dry bulb thermometers
- Use the conversion scale to determine the humidity/ interpretation of the temperature difference.

OR

- The pointer is set at the 0 mark on the scale
- The instrument is left for sometime
- Readings are made /recorded at the point where the pointer stops moving.

(b)

- Distance from large water bodies/ sea
- Altitude
- Natural vegetation
- Latitude
- Temperature

5. (a)

- Overfold
- Recumbent fold
- G – Overthrust fold/Nappe ***(3 mraks)***

(b)

i) Andes - Chile/Peru/ Bolivia/ Argentina/ Equador/ Colombia./ Venenzuela
ii) Cape Ranges - South Africa
iii) Alps - Austria/ Switzerland/Italy/ France/Liechtenstein

(3 marks)

SECTION B

(a)

i) Kisumu district
- Homa Bay district
- Kericho

ii) 2° 33'
iii) 8.5km (+ or - 0.1km)
iv) Between 1720 and 1780 m above sea level *(3 marks)*

(b)

- It has two main tributaries, Itare and Kitoi
- River Kitoi flows from north-eastern direction/ River Itare flows from south/ River Yurith flows westwards
- The river has many meanders
- The river becomes wide from grid square 3247/ just before the bridge
- There are interlocking spurs along the course
- The river has many small tributaries that form dendritic pattern along the course
- There are some papyrus swamps and marshes in some parts of the river valley
- There are rapids/ waterfalls
- Some parts on the long profile have steep gradient
- There are sand /mud deposits downstream
- The river is permanent.

(c)

- The lowest altitude is 360m/the highest altitude is 2020m above sea level
- The land rises from the name North 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 interlocking spurs along the river valleys
- There are some broad flat valleys in the central part of the area
- The landscape is dissected by the many river valleys
- There are many narrow river valleys
- There are numerous steep slopes to the West/gentre slopes to the East.

(d)

- The area experiences cool temperatures that form tea growing. This is due to the high altitude as evidenced by contours that rise above 1700 metres above sea level.
- The area receives high rainfall that is adequate for tea growing as evidenced by the presence of forests/many permanent rivers.
- The area is gently sloping as evidenced by widely spaced contours which allows mechanization during land preparation.
- The area has well drained soils suitable for tea growing. This is due to gently sloping terrain as indicated by the moderately spaced contours.

- The area has adequate supply of labour necessary for tea picking as evidenced by the high density of settlements/labour lines.
- The area has well developed transport network for transporting tea leaves to the factories evidenced many roads/main tracks. *(25 marks)*

7(a) (i) K - Radiation/heat from the sun/sun's rays/insolation
L - Percolation/underground water/underground stream
M - Evapotranspiration/Evaporation/water vapour

(3 marks)

(ii)

- Amount /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 rate of surface run-off.
- 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/soils should be impermeable to allow for limited infiltration and percolation for the excess water to form surface run-off.
- Water table/level or saturation should be high to reduce infiltration
- Vegetation-Absence of vegetation will increase the rate of run-off.
- Human activity – construction of pavements/Roads in built up areas prevent infiltration and arouse surface run-off.

(6 marks)

(b) (i) It is the movement of weathered rock material down the slope under the influence of gravity *(2 marks)*

- Soil creep
- Talus creep/scree creep
- Solifluction
- Rock creep *(2 marks)*

(ii)

- Steep slopes which allow soils to move down easily.
- Presence of loose soil/absence of firm rock which means that soils are easily destabilized.
- Occurance of earthquakes which interferes with stability of soils.
- Heavy rain facilitates movement of materials downslope

(6 marks)

(c) (i)

- Rock fall
- It occurs where rocks are well joined and with steep slopes. Rock parts are detached from the steep slopes and fall rapidly at the base of slope/frequent freeze-thaw action on steep slopes produces particles which get detached and fall at the base of the rock face. *(2 marks)*

(ii) Subsidence – Subterranean weathering leads to formation of caves/caverns. Where the roof is too heavy to remain suspended, it collapses vertically.

(2 marks)

(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 becomes heavier until it comes to rest at the foot of the slope). *(6 marks)*

(d) (i) Tourism - Features created through mass wasting are tourist attractions.

(2 marks)

(ii) Soil fertility – Mass wasting facilitates sol erosion leading to soil degeneration/may lead to formation of fertile soil where such soils are deposited.

(2 marks)

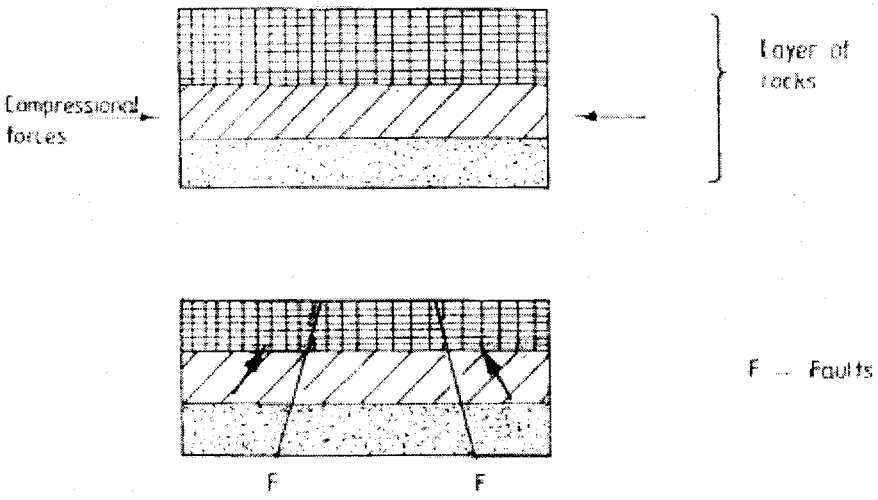
8. (a) (i)
   - Normal fault
   - Reverse fault
   - Tear/shear fault/transform/wrench/strike slip
   - Thrust fault
   - Anticlinal fault

(3 marks)

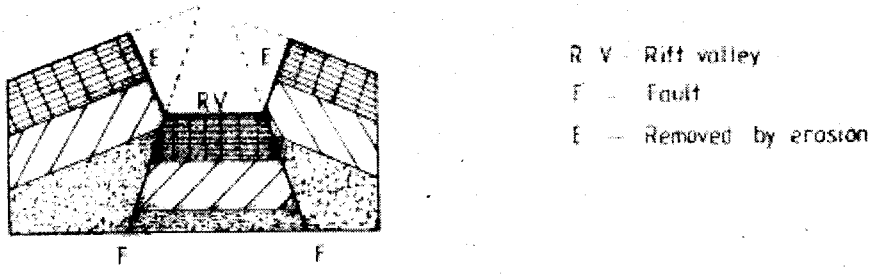
(ii)
- Faulting may be caused by forces acting horizontally away from each other which causes tension in the crustal rocks. Due to tensional forces the rocks stretch and fracture causing faults.
- Faulting may occur where horizontal forces act parallel to each other in the opposite/same direction resulting in shearing.
- Faulting may also occur due to vertical movements which may exert a strain in the rocks making them to fracture.

(4 marks)

(b) Formation of the Great Rift Valley by compressional forces.
- Laycrs of rocks are subjected to compressional forces.



Two parallel lines of weakness develop and these form reverse faults



- Compressional forces may push the outer blocks towards each other
- The outer block the middle block reduces the middle block/sinks/subsides/may remain stable.

- The (sunken) middle part forms a depression called a rift valley.

Diagrams 4
Explanations 4 *(8 marks)*

(c)

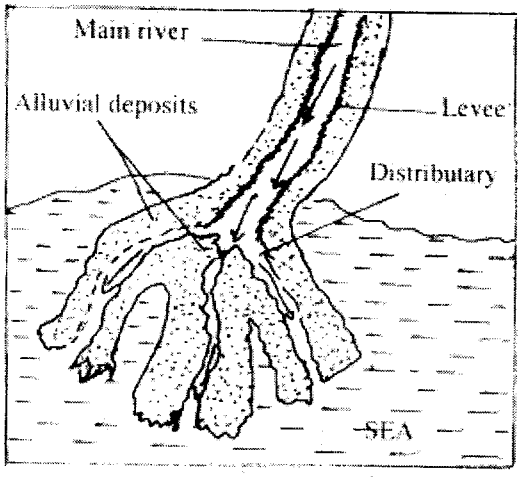
- Faulting leads to formation of features that form beautiful scenery which attract tourists.
- Faulting leads to formation of lakes that are important fishing grounds/tourist sites/mining
- sites/provide water for irrigation/for domestic use/industrial use.
- Faulting causes displacement of rocks which 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/production of H.E.P.
- Block mountains formed through faulting lead to formation of relief rainfall on the windward side which favours agriculture/settlement/forestry.
- 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.
- Subsidence of land as a result of faulting may lead to loss of life/property.
- Faulting may cause a river to change direction or disappear causing water shortage for the people downstream.
- Springs occurring at the foot of faults carps attract settlements.
- Faulting creates deep faults which passages for steamjets which may be utilized for Geotremal power production.
- A river flowing over faultscarps may form waterfalls which may be suitable sites for HEP production.

(10 marks)

9. (a) (i) Apart from Bird's foot delta, name two other types of coastal deltas

- Arcuate delta
- Estuarine delta
- Cuspate delta

(2 marks)



(3 marks)

- The location of the Delta should be in the sea.
- The shape o a bird's foot delta should be portrayed – some distributaries should be longer then others should not be same size
- Distributaries should be 3 or more.

(iii)

- It forms at river mouths where waves, tides and currents are very weak.
- Deposition of large amounts of fine sediments occur at the river mouth.
- The deposits block the channel of the river.
- The river divides into few distributaries.
- Each distributary continues to deposit it s load maintaining levees as it extends into the sea.
- Some distributaries extend further than others creating the shape of a bird's foot.

(9 marks)

(b) 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 result in the formation of inlets/bays.
- The gradient of the coast/slope. Steep coasts encourage wave erosion resulting in the formation of cliffs/wave cut platforms/gently sloping coasts cause increased deposition resulting in the formation of beaches.
- Alignment of the coast in relation to the prevailing winds will cause wave erosion/deposition.
- The rise in the level of the sea results in drowning of features along the coast to give rise to new features/landforms/The fall in seal level exposes features that were once covered by the water. Human activities interfere with the natural state and appearance of the coasts.
- Nature of the waves where waves are destructive, the coast is characterized by erosional features/where waves are constructive, the coast is rised by depositional features.

(8 marks)

(c) (i) A barrier reef is formed a long distance away from the shore and is separated from the shore by a wide deep lagoon whereas a fringing reef is closer to the shore and is separated from the shore by

(ii) marked P, Q and R.

P - Blowhole
Q - Cave
R - Cliff

(3 marks)

(iii) - 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. ***(3 marks)***

10. (a)

(i) X - Stalactite
V - Stalagmite
W - Cave

(3 marks)

(ii) Solution of Calcium bicarbonate trickles down slowly through the roof of a cave/cavern.

- Solution droplets hang on the roof of the cave.
- Water evaporates and the calcium carbonate in it is precipitated.
- The precipitated calcium carbonate gradually builds downwards over a period of time as the solution continues to drip from the roof to form a stalactite
- Solution splashes on the floor. Water evaporates and calcium carbonate in it is precipitated
- The precipitated calcium carbonate gradually builds upwards to form a stalagmite.

- Over time, the stalactite and the stalagmite join to form pillar/ column.

(6 marks)

(b) (i)

It is a saucer-shaped depression consisting of a layer of permeable rock lying between two layers of impermeable rocks, with part of the permeable rock exposed to the surface along the edges of the basin.

(2 marks)

(ii) 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 weaknesses.
- 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.

(6 marks)

(c) (i) To show the extent/delimit the area of 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. *(3 marks)*

(ii)

- Exposed rocks/inselbergs/tors
- Ridges/clints
- Gullies/wadis/grikes/dry rive beds/gorges
- Earth pillars
- Butes, mesas, swallow hole, dolines, polges, urales *Any 2 x1(2 marks)*

(iii)

- Building of gabions
- Constructing terraces
- Planting trees
- Adapting farming methods that allow conservation of soil/planting cover crops/strip cropping

(3 marks)

30.8.2 Geography Paper 2 (312/2)

SECTION A

1. (a) Name two exotic species of trees planted in Kenya.

- Pine
- Cypress
- Blue gum/eucalyptus
- Wattle
- Kei-apple
- Bombax, Gravillea, Mango
- Jacaranda, Cedar, Casuarina *Any 2 x 1 = (2 marks)*

(b) State three reasons why it is necessary to carry out afforestation programmes in Kenya.

- To protect water catchment areas
- To protect soil form erosion by wind/water
- To ensure sustainable supply of forest products
- To put more land under forest cover/to check desertification
- To check the extinction of indigenous trees
- To regulate climate *Any 3 x 1 = (3 marks)*

2. (a) Give three physical conditions that favour maize cultivation in Trans Nzoia district in Kenya

- Temperatures ranging from 10° C to 30°/warm to hot condition//climate/moderate to high temperature/moderate to high/wet climate/volcanic soils
- Rainfall ranging from 800mm to 2500mm
- Deep, fertile well drained soils
- Gently sloping/undulating land
- Sunny/dry season

Any 3 x 1 = (3 marks)

(b) State three problems facing maize farming in Kenya

- High cost of farm inputs/poor quality seeds
- Unpredictable climatic conditions
- Fluctuating/low prices/Delayed payments
- Pests and diseases affecting the crop e.g white leaf bright/stalk rot/maize streak/smut/rust – pests e.g cornear worm/silkworm/stalk borer/armyworms/ beatles/birds/rodents
- Impassable roads during the rainy seasons
- Poor/inadequate storage facilities
- Striga weeds/coch grass
- Inadequate capital

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.
- Regular/Constant flow of the River Tana.
- Presence of Impervious rock.

(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 2 x 1 = (2 marks)

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/ clustered/dispersed/scattered *(1 mark)*

(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 set up 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 2 x 1 (2 marks)

5. (a) Apart from windstorms name two other environmental hazards associated with climatic conditions.
   - lightening/Thunderstorms
   - floods
   - drought/desertification
   - landslides
   - heatwaves

   Any 2 x 1 (2 marks)

   (b) State three problems caused by windstorms in Kenya
   - Windstorms destroy trees/crops
   - They blow off roofs of house
   - They disrupt transport/communication lines
   - They spread bush fires
   - They cause strong sea storms
   - They accelerate erosion

   Any 3 x 1 (3 marks)

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 to answer questions (a) and (b).

NO OF TOURISTS PER YEAR

Place of origin	**2005**	**2006**
Europe	945,000	965,000
African	120,00	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 ***(2 marks)***

(iii) Calculate the percentage increase of the number of tourists from Australia and New Zealand between 2005 and 2006.

$\frac{5000 \times 100}{19000}$ = 26/3%/26.32%/26%

0r

$\frac{100 \times 24000}{19000}$ = 126.31 – 100=26.31% ***(2 marks)***

Europe - $\frac{965,000}{1,415,000}$ x 15 = 10.2cm/10.23 cm

Africa - $\frac{144,000}{1,415,000}$ x 15 =1.6cm/1.63 cm

Asia - $\frac{128,000}{1,415,000}$ x 15 =1.4cm/1.36 cm

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

Australia & New Zealand

$\frac{24,000}{1,415,000}$ x15 =0.3cm/0.25 cm

All other countries

$\frac{41,000}{1,415,000}$ x 15 =0.4cm/0.42

(10 marks)

(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 ready to interpret

(ii) Give your reasons why in 2005 and 2006 there were more tourists visiting Kenya from Europe compared to those from other parts of the world.

- There were many direct flights from European capitals to Kenya.
- There had been aggressive marketing for tourism in Europe.
- Europe has had a long historical ties with Kenya/good relations.
- Europe avoided giving travel advisory to tourists visiting Kenya.
- Europe countries encourage package tours to Kenya.

Any 4 x 1 (4marks)

(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 part of the
    - Country
- To make Kenyans appreciate the country's national heritage/artefacts/culture/wildlife.
- To enable people from different communities to interact/to enhance national unity
- To enhance circulation of money within the country/to promote domestic trade
- To create employment in the country

Any 5 x 1 (5 marks)

7.

(a) State three physical conditions that favour coffee growing in the Central Highlands of Kenya

- The highlands experience high 1000 – 5000 mm per year well distributed rainfall throughout the year which is ideal for coffee
- The soils are deep fertile volcanic type
- The area experiences cool – warm conditions/14 - 24°C throughout the year
- The land has gentle slopes that allow good drainage/well drained soils

Any 3 x 1 (3 marks)

(b) Describe the stages involved in coffee production from picking to marketing.

- The ripe/deep red berries are picked by hand
- The harvested barriers are carried in baskets/sacks to the factory.
- The berries are sorted out to remove the unripe/diseased berries
- The berries are graded into grade A and B
- The different grades are weighted
- 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 100°C.
- The beans are ground into powder and packaged ready for sale.

Any 8 x 1 (8 marks)

(c) Explain four problems facing coffee farming in Brazil

- The wasteful techniques of growing the crop leads to soil exhaustion which makes the coffee yield per hectare lower/unregulated cultivation leads to soil exhaustion/low quality coffee.
- Climate 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 lead to low profits.
- Stiff competition from other coffee producing countries reduces Brazil's dominance in the world coffee market.

(Explanation alone cannot be credited)

Any 4 x 2 = (8 marks)

(d) Your geography class carried out a field study on a coffee farm.

(i) State four methods the class may have used to collect data.

- Administering questionnaires
- Interviewing/asking questions
- Taking photographs/video taping
- Observation
- Taking measurements
- Collecting samples
- Counting
- content analysis *Any 4 x 1 (4 marks)*

(ii) During the field study the class collected data on quantities of coffee produced from 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 x 1 (2 marks)*

8. (a) (i) What is visible trade?

- Visible trade involves exchange of good between countries/visible trade consists of the import and export of goods.

Any 1 x 2 (2 marks)

(ii) List three major imports to Kenya from Japan.

- Automobiles/vehicle parts
- Textiles
- Machinery/electronic appliances/Radios/TVs
- Watches/precision instruments *Any 3 x 1 (3 marks)*

(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/Production of different goods enhances trade in different areas
- The low purchasing power by a majority of Kenyans limits the market for goods produced.
- The level of development of transport networks limit enhances trade as certain commodities may not be carried/may be carried over long distances/the market potential is restricted/expanded.
- Security encourages expansion of trading activities in an area/insecurity discourages trade.

(c) State four ways in which trade is of significance to Kenya

- Trade generates revenue through taxation of the goods/services.
- Trade creates employment opportunities in the industries that are established/creates self employment.

- The demand for manufactured goods stimulates industrial growth/Agricultural growth
- The export of goods enables the country to earn foreign exchange.
- The need to reach far off markets leads to expansion of transport facilities.
- Trade leads to the development of urban centres/improved infrastructure.
- Trade stimulates specialization in the production of goods.
- Trade enhances cooperation between Kenya and the trading partners/between communities in Kenya

4 x 1(4 marks)

(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 market 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 product/secured the market for the member states.
- The transfer of technology/capital within the trading area has been enhanced.
- Cooperation in other fields such as education/health/communication has been enhanced.
- The reduction in hostilities between member countries has enhanced peace resulting in rapid economic development.

Any 4 x 2 (8 marks)

9. (a) (i) Name three agricultural non-food processing industries in Kenya.

- Tobacco processing
- Footwear making
- Leather tanning
- Beeswax processing
- Sisal processing
- Pyrethrum processing

Any 3 x 1 (3 marks)

(ii) State four ways in which Kenya has benefited from the motor-vehicle industry.

- Kenya saves foreign exchange
- Kenya earns foreign exchange through motor-vehicles export
- The industry has created employment opportunities
- The industry has promoted trade links with the neighbouring countries as Kenya sells motor vehicles to them
- The industry has attracted foreign investors
- It has led to the development of skills among Kenyans
- Kenya earns revenue from taxes/licences
- The industry has promoted transport sector by availing buses/lorries/vans/cars

Any 4 x 1 (4 marks)

(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/shortage 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.
- Concentration of infrastructure and social services in the industrial centres has caused an imbalance in economic development.
- Careless dispatch/dumping of industrial waste has led to the degradation of land.
- Some industries have led to the displacement of people thus disrupting their social/economic life.

Any 3 x 2 (6 marks)

(c) Explain three factors which influenced the location of iron and steel industry in the Ruhr region of Germany in the 19th 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/Wopper/Emscher and its tributaries provided water required for cooling machines in the industry/industrial use
- The region is served by navigable rivers R Rhine eg. Dortmond- Ems/Rhein-herne/Lippe and canals which provided cheap transport for the bulky raw materials and finished products.
- 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 formed the foundation of iron and steel industry.
- Presence of rich companies e.g Ruht-kohle/e.g Krupp families which provided capital for the development of the industry.
- The dense/affluent population in (Central and Western) Europe/Germany provided ready market for iron and steel.

(Explanation alone cannot score)

Any 3 x 2 (6 marks)

(d) You intend to carry out a field study of a 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 determine the appropriate tools for the study
- To determine the likely costs to be incurred during the study
- To be able to formulate appropriate objectives for the study.
- To be able to prepare appropriate methods for data collection
- To establish the size of the workshop for proper/planning prepare work schedule
- To find out possible problems likely to be experienced during the field study
- To seek permission for the visit.
- To be able to prepare a route map
- To determine the suitability of the area for study

Any 2 xl (Marks)

(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 study

Any 2 x 1 (2 marks)

(iii) Give two advantage of studying about furniture – marking through field work.

- It enables one to get first hand information
- It makes learning interesting/it breaks the classroom monotony
- It makes learning real
- It enables one to share information
- It enables one to retain information learned.
- It enables one to apply skills learnt/acquire skills

Any 2 x 1 (2 marks)

10. The map below shows the location of some urban centres in East Africa. Use it to answer question (a). (See question paper)

(a) (i) Name the towns marked P,Q & R

- P – Kampala
- Q – Kigoma
- R – Mandera

(3 marks)

(ii) Name the minerals that influenced the growth of the towns marked X and Y.

- A – Diamond
- Y – Trona/Soda Ash ***(2 marks)***

(b) Explain four factors that have led to the growth of Eldoret as a major town in Kenya.

- Eldoret started as a railway on the Kenya Uganda railway and thus attracted settlement by the people from around the town.
- Eldoret has a rich agricultural hinterland which has led to its growth as an agricultural collecting/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 room for expansion.
- The modern infrastructure such as the international airport have encouraged trade.
- Investment by local entrepreneurs/athletes has led to the expansion of the town.
- High population in the surrounding region provide 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 Gish district) and this has attracted administrative services in the town.
- Establishment of. 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 Kimbeni while Rotterdam is at the mouth of River Rhine ***(2 marks)***

(ii) Transport link to the interior – Mombasa relies on road, railway, air and pipeline to the interior while Rotterdam has in additional, River Rhine/canals/Rotterdam is a major transshipment centre. ***(2 marks)***

(iii) The hinterland

- Both ports have extensive hinderlands/Mombasa's hinterland extends to DRC Congo while Rotterdam serves the continental Europe.

(2 marks)

(iv) Port facilities – Both ports have containerilized terminals Rotterdam has much larger warehouses/more modernized/sophisticated port facilities.

(2 marks)

(d) Explain two ways in which urbanization negatively affects the surrounding agricultural land

- Dumping – The nearly agricultural lands are sometimes used as dumping grounds for the waste generated in the urban centers thus polluting them.
- There is conflict in land use as the urban centres expand into the land that would otherwise have been used for agriculture.
- There is competition for labour as urban centres offer higher wages than agricultural areas.

Any 2 x 2 (4 marks)