GEOGRAPHY pp2
Form 4 marking scheme

1. State five reasons of studying Geography
prepares one for career opportunities
promotes awareness about the country
Promotes international understanding
Promotes development of skills and critical thinking
provides knowledge about the immediate environment and wider envirtwment and
makes us understand the earth which we live in (Any 5xl= 5 marks)
2. *a)* Two biological factors influencing agriculture
Weeds and parasitic plants.
Pests/fungi/diseases. (Any 2 x 1 =2)
b) Three use of sugars in Kenya**.**
Used as sweetener for a whole range of foods and beverage.
Used in the manufacture of sweets, chocolates. Spirits, soft drinks and juices.
Used as a sweetener of syrup in the food canning industry.
Brown course sugar and molasses are used in the manufacture of local brews.
Molasses used as a sweetener for livestock feeds.
Molasses used in the manufacture of ethanol acetone and ethyl acetate.
Filter cake from filtration process during manufacture of sugar is used as manure in
The fields near the factory. (Any 3 x I = 3mks)

3a) Name three main mining methods.   (3mks)
- surface mining
- Underground mining
- Alluvial mining
- Submarine method   Any 3 x 1 = 3 mks

b) Name two places where Gold is mined in Tanzania.   (2mks)
- Mpanda
- Musoma
- Lupa
- Mwanza   Any 2 x 1 = 2mks)

4a) Outline three characteristics of coniferous forests.   (3mks)
 - trees are conical in shape
- occurs in pure stands
- trees grow tall and straight

- trees have needle-like leaves
- trees are evergreen
- trees ahve thick barks
- trees have shallow fibrous root system   Any 3 x 1 = 3mks

b) Identify two fibre crops found in the tropical forests.   (2mks)
- flax
- Jute
- Palm   Any 2 x 1   = 2mks)

5. (a)   Name two tourist attraction found in Kenyan Rift Valley.
            - Lakes e.g Nakuru, Baringo, Naivasha, Elementaita.
            - Flamingoes / birds.
            - People's culture.
            - Mining sites e.g Kariandusi.
            - Nakuru National park.
            - Hot springs / geysers / fumaroles / geothermal.
            - Menengai crater.
            - Water falls – Thomson falls.
            - Wildlife.
            - Pre-historic sites e.g Kapenguria.
            - Sport tourism e.g sport fishing, marathon.
   (b)   State three factors that hinder domestic tourism in Kenya.
            - Negative attitude towards local tourism by the citizens.
            - High cost of accommodation in the lodges and hotels discourages many people.
            - Poor transport and communication network of roads leading to the parks and other attractive sites.
            - Preferential treatment gives to the foreign tourists discourage locals.
            - Inadequate knowledge on the tourist attractive sites.

6 The table below shows the prices of sugar in Kenya shillings per ton in some countries in Africa.

Use it to answer questions (a)

YEAR	KENYA	SOUTH AFRICA	TANZANIA	ZAMBIA
2014	95,400	61,927	68,702	84,447
2015	111,713	67,462	66,985	93,798
2016	110,878	65,173	90,649	86,832

a)(i) Draw a divided rectangle 16cm long to represent the prices of sugar in the year 2016   (8marks)

110,878 + 65,173 + 90,649 + 86,832 = 353,532 (1mark)
Length of bars

Kenya = $\dfrac{110,878}{353,532}$ x 16 = 5.01cm = 5cm ($^1/_2$mark)

South Africa = $\dfrac{65,173}{353,532}$ x 16 = 2.95 cm = 3cm ($^1/_2$mark)

Tanzania = $\dfrac{90,649}{353,532}$ x 16 = 4.10cm = 4cm ($^1/_2$ mark)

Zambia = $\dfrac{86,832}{353,532}$ x 16 = 3.93cm = 4cm ($^1/_2$ mark)

Divided rectangle showing prices of sugar in 2016

KENYA	+ + + + + TANZANIA + + + + + +	O OOOO ZAMBIA O OOOO	/ / / / / SOUTH AFRICA / / / / / / / / / /

Title (1mark)

Segments = mark each (4marks)
Calculations = ½ mark each = (2 marks)
Rectangle (1mark)
                                    Total (8marks)
(ii) State two advantages of using compound bar graph to present
statistical data (2marks)
It gives a clear visual impression
It allows for comparison
Easy to read and interpret
Can be used to present a wide range of data.
(2 x 1 = 2marks)

(b) State three physical conditions that favours cocoa farming in Ghana

(3marks)
- Well distributed rainfall throughout the year to enhance growth of cocoa.
- High rainfall / 1300 – 1500 mm per year to enhance growth of cocoa
- High temperature 24-30c to enhance the growth of cocoa
- Deep soils for proper anchorage
- Well drained soils for high production
-High humidity 70 -80% to enhance availability of moisture in the soil
- Undulating low lands 0-70m above sea level
-sunshine for ripening of cocoa pods
-Shade from strong sun rays for the seedlings
- Shelter from strong winds for protection

(Any 3 x 1 = 3marks)

(c)Describe the stages involved in processing of cocoa from harvesting to
market(8marks)
- Pods are cut using sharp knives
-the pods are collected and pilled at a central place
-the pods are split open using a sharp knife
-the beans are scooped by hand
-the cocoa beans are heaped on mats and covered with banana leaves to ferment for 5-6
days as the pulp drains away.
-The fermented beans are washed and cleaned
- The beans are spread on tables covered with mats to dry in hot sun
-the beans are turned frequently until they turn brown
-the dry beans are packed in bags
- transported to the buying centers
-the beans weighed, graded ready for export.

(Any 8 x 1 = 8marks)

(d) A part from making oil, give four other uses of oil palm
(4marks)
- the leaves are used for roofing
-the shells / fibers are used for fuel
-the leaves are used for making baskets / hats/ mats/brooms
- the stems are used as building poles.
- the sap is used for making wine / alcoholic drinks
-crushed nuts are used for animal feeds / fertilizer

(Any 4 x 1 = 4marks)

7(a) (i) Distinguish between a forest and forestry.
(2marks)
A forest is a continuous growth of trees and undergrowth covering large tracts of land
while Forestry is science of developing, cultivating and managing forest resources.
(ii) Name two indigenous softwood trees species found in Kenya
Cedar / juniper

Podo

(b)(i) Characteristics of planted forests
- consist of one / pure tree species
- Trees occur in rows
-harvested at the same time
-trees are mainly softwood
-trees mature fast
- Trees are easy to exploit / work on
- logs are light hence easy to transport

(Any 3 x 1 = 3marks)

(ii) Name two forest reserves in West of the Rift valley of Kenya   (Any 3 x 1 = 3marks)
Kaptagat
Malava
Mt. Elgon
Kakamega
Mau
Cheranganyi   (2 x 1 = 2marks)

b) (i) State four characteristics of temperate hardwood forests.   (4marks)
- trees are deciduous and they shed leaves in autumn then remain leafless in winter
- Has a fewer number of trees species per unit area compared to tropical hardwoods
-trees have bread leaves
- Most trees e.g redwoods are durable and strong
-trees are less bulky so easier to exploit
-most trees are of high commercial value

(Any 4 x 1 = 4marks)
(ii) Explain any three problems which have limited exploitation of tropical hardwood forests in Africa   (6marks)\
There is a wide variety of tree species per unit area thus make exploitation difficult
The buttress roots make the trees difficult to cut / haul/ cumbersome to fall
Forests have dense undergrowth trees are closely set thus exploitation / felling of trees is hard. Trees take long to mature 65-70 years / 100 years hence difficult to regenerate to sustain exploitation
The forests are habitat to dangerous wild animals make exploitation insecure
The hot and humid conditions encourage pests and diseases which are harmful to the lumbers' and also the trees
The heavy rain throughout the year lead to muddy roads hence harder transportation of logs.

The logs are hard and massive hence difficult to cut and transport
Inadequate capital limit the use of modern techniques of exploitation of forest

(Any 3 explained pointed x 2 = 6 marks)

c) Give the difference between exploitation of softwood forests in Kenya and Canada under the following headings: (2marks)

i) Trees species   (2marks)

- in Kenya the tree species comprise of both exotic and softwoods while in Canada the tree species are mainly indigenous and are of coniferous type.
- In Kenya the indigenous softwoods are Podo, African pencil, cedar and the exotic are cypress, fir, and wattle while in Canada the main tree species are pines, spruce and forg.

(Any 1 x 2 = 2marks)

(ii) Mode of exploitation

In Kenya workers are transported daily to the logging sites since there are not camps in the forest for workers / workers live nearby while in Canada logging involves setting up of settlement for workers within the region being exploited /harvested.

1 x 2 = 2 marks
(iii) Marketing of products
Kenya consumes most of the products locally but some are exported to Arabic countries, USA and Europe while in Canada most products are exported to USA, Europe, Britain but some is consumed locally.
1 x 2 = 2marks

8.   **a)**   i)   <u>Methods of reclamation</u>
-     Irrigation
-     Tsetse fly control
-     Planting of trees / afforestation
-     Flood control   any 2 × 1 = 2 marks

            ii)   <u>Methods of swamp drainage</u>
-     Construction of drainage pipes.
-     Digging open ditches / canals.
-     Pumping out water.   any 2 × 1 = 2 marks

b)   i)   <u>Two rivers that supply water to Mwea</u>

- Thiba River
- Nyamindi river
- Murubaru river.   any 2 × 1 = 2 marks

ii)   Factors influencing establishment of Mwea irrigation scheme
       Topography
- The gently slopping / undurating land makes it possible for water to flow by gravity onto / out of the irrigated land.
- The gently slopping land allows for mechanization which allows large areas to be put under cultivation.   any 1 × 2 = 2 marks

Soils
- Presence of black cotton soil which retains water for a long time suitable for cultivation of rice   .   any 1 × 2 = 2 marks

Population
- The area was originally sparsely populated which enabled large areas to be put under cultivation / very few people were displaced thus it as cheaper to start the scheme.   any 1 × 2 = 2 marks

Government policy
There was need to keep political detainees busy / use them to provide free labour. This made the colonial government to set up Mwea where scheme there was a large detention camp.   any 1 × 2 = 2 marks

c)   i)   Three areas of Zuider zee project
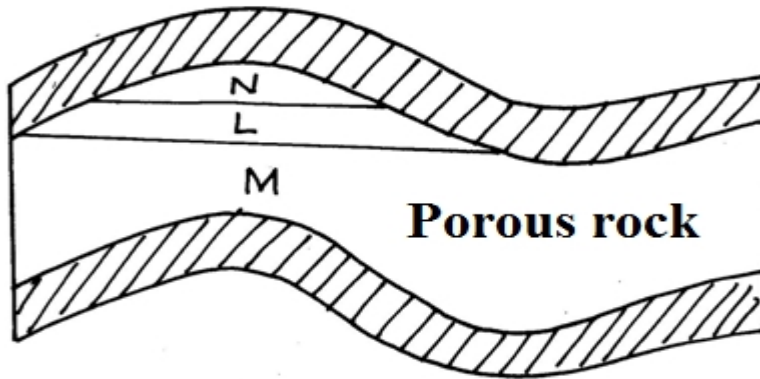- North Eastern folder
- South Flavoland
- East flavoland
- Markerward
- Wie ringer meer polder.   any 3 × 1 = 3 marks

ii)   Differences between land reclamation in Kenya and Netherlands.
- In Kenya the reclaimed land is relatively small while areas reclaimed in the Netherlands are large.
- In Kenya irrigation is used as a means of reclaiming dry areas while irrigation in the Netherlands is used to lower salinity of the soil in reclaimed lands.
- In Kenya simple methods like digging canals ditches to drain water from the land while in the Netherlands highly advanced methods like draining land from the sea/ creating a polder are used.
- In Kenya dykes are used to control water floods while in the Netherlands dykes protect the reclaimed land from invasion by the sea.
- In Kenya land is reclaimed from marginal areas and swamps while in the Netherlands it is from the sea.
- Drought resistant crops are planted in marginal areas while in the Netherlands hardy crops lie oats, barley are planted in the polders.

-        In Kenya there is low market for irrigated crops while in the Netherlands there
         is a large market for irrigated crops.
              any 4 × 2 = 8 marks   Comparison must be complete to score.

9(a)(**i**)Name the substances   (3mks)

Porous rock

L-Oil
M-Underground water
N-Natural gas
(ii)Give three by-products obtained when crude oil is refined   (3mks)
Bi lumen
Wax
Lubricants such as grease
Petrochemicals
(b State five effects of mining on the environment   (5mks)
Mining causes
Dereliction of land
Pollution of water and land
Disruption /lowering of the water table
Instability of basement rock
Destruction of bio diversity
Soil erosion
Wastage of agricultural land

(c)(i)Describe the stages involved in the processing of trona from lake magadi
                                             (6mks)
On reaching the factory ,trona is separated from water by being put on large sieve –
like trays
The water from the trona is directed back into the lake
The trona is then washed to remove impurities such as mud and salt.It is heaped on
the ground to dry
After drying ,it is heated in huge cylinders called desiccators .The heating separates

sodium carbonate (soda ash) from sodium bi -carbonate .

When heating is complete, the soda ash is allowed to cool.

Soda ash is then ground into poweder and sieved

The powder is packed in paper or jute bags, ready for transportation to the market.

(ii) Ways in which Kenya has been profited from the mining of trona on lake magadi

(8mks)

Through exporting trona ,the country erans foreign exchange which is used to important essential items like machinery

The mining of trona has created employment to many Kenyans improving their living standards it has led to establishment of industries by providing raw materials e.g glass industries

It has led to provision of social amenities e.g hospitals, schools hence improving living standards.

Mining of trona has stimulated the development of transport lines e.g it has led to the growth of Magadi town.

The company that runs the mining of trona has improved the living standards of the local people by providing free water for domestic and livestock use

The government earns revenue through taxation of the earnings from the sale of soda ash.

10a) i) Name two types of fish reared in fish farms in Kenya**.**

Tilapia

Trout

Mudfish Any 2xl2mks

ii) State four efforts taken by the Kenya government to improve fish farming**.**

Extension officers advise farmers on the need to set up ponds and to introduce fish in their diet.

Lake Basin authority has set up fish ponds and hatcheries as demonstration farms e.g. at Kibos, Kabaru, Aruba, Homabay to provide fingerlings to farmers.

Fisheries department provides technical aid and offers financial assistance to fish farmers.

Public campaign by the government has made communities that previously never ate fish to set up fish farms for subsistence and commercial purposes. 4xl= 4mks

iii) Differentiate pelagic fishing from demersal fishing. çj

Pelagic fishing involves the catching of fish that swim close to the water.

Surface while demersal fishing involves the catching of fish at the bottom of deep water bodies where the water is cool/at the bottom of the continental shelf.

b) Describe purse-seining method of fishing.(2mks*)*

It uses two boats, one large and one small.

It uses large net.

The net has floats on top and weights at the bottom to keep in a vertical position while

in water.

The fishermen begin by locating a shoal/area which has fish.

The string at the bottom of the net is pulled to close the net at the bottom and trap the fish.

The net is pulled out of the water and the fish hauled into a large boat for preservation and transportation to the shore.   Any 5xl5mks)

c) Compare fishing in Kenya and Japan under the following headings.

i) Nature of landscape

Japan has rugged mountainous landscape which hinders agriculture; hence most people turn to fishing as an alternative source of food while in Kenya most of the land favours agricultural activities so many people are engaged in agriculture hence only a small number of people practice fishing. (2mks)

ii) Market

There is limited market for fish as most communities in Kenya do not have a fish eating culture while in Japan the large population and surrounding nations provide a ready market. Japan has an established fish eating culture. (2mks)

iii) - Climate

Kenya is located with tropical latitudes leading to warm climates conditions which limit the growth of plankton while Japan is within the temperate latitudes leading to cool climatic conditions which are ideal for the growth of plankton.

d) Explain the following problems of fishing in Kenya and suggest one possible solution for each.

i) Pollution (3mks**)**

Chemicals washed into rivers, lakes and seas as well as impurities produced by manufacturing industries and domestic waste/pollute fishing grounds killing fishing.

Oil spills over the ocean pollutes the sea depriving the fish oxygen and most of them die.

Sewage disposal from many urban areas have destroyed fish habitats.

Solution- proper legislation should be put in place to check the disposal of industrial waster into the fishing grounds, inspection should be carried out to regulate waster disposal. (

ii) Growth of weeds

Growth of water hyacinth in Lake Victoria chokes the fishing boats Lake Naivasha has been affected by a weed known as Salvinia Molesta which forms a thick barrier on the water surface hindering the penetration of sunlight for the growth of plankton.

Solution: Mechanical and biological removal of the weeds.