GEOGRAPHY
FORM FOUR PAPER 2
1.   i) Two irrigation schemes established in Kenya for land reclamation

                                                                                                    (2mks)

−   **mwea tebere**
−   perkerra
−   hola
−   bunyala
−   Ahero
−   West Kano
ii) What is a polder   **(1mk)**
−   Land reclaimed from the sea
iii) Three crops grown in the polder   **(3mks)**
−   Wheat
−   Beet root
−   Potatoes
−   Vegetables
−   Rye
−   Oats
−   Barley barley
2.   i) Distinguish Horticulture and market gardening   **(2mks**)

−   Horticulture is an intensive cultivation of vegetables, fruits and flowers for sale while market
      gardening is an intensive cultivation of vegetables and fruits for sale in the nearest urban centres
                                    (2 x 1=2mks)
i)   Problems facing horticultural farming in Kenya   **(3mks)**
−   Muddy roads during rains hindering accessibility to collecting centres.
−   Poor marketing system – farmers produce rot in farms
−   Inadequate refrigeration facilities –lowers the quality and quantity of perishable products.
−   pests and diseases of ten destroys crops
−   stiff competition from the international markets   **(3 x1=3mks)**
3.   i)   Define the term mining?   **(2mks)**
-    Process of extraction of minerals either solid, liquid or gaseous from on/beneath the earth surface (**2
     X 1=2mks**)
     Only award when one/beneath are mentioned
     ii)   Negative effects of mining to the environment   **(3mks)**
−   Interferes with drainage systems such as barring the river course
−   Causes air pollution through dust emission into the atmosphere.
−   Causes land dereliction through heaping of soil on land   (**3 x 1=3mks**)
4.   i) Give two indigenous soft wood trees grown in Kenya   **(2mks)**
−   Podo
−   African pencil
     ii) Problems facing forestry in Canada
−   Outbreaks of fires and diseases destroying forests
−   Harsh cold climates slowing down forest regeneration after felling trees.
−   In accessibility of some parts of Canada in winterdue to very cold climatic conditions.
     Consider only the well stated point   **(3 x 1=3mks)**

5. a) Types of fishing   **(2mks)**
    –   Pelagic
    –   Dermersal
    –   Freshwater
    –   inshore   **(2 x 1=2mks)**
    b) Problems facing fishing
    –   Pollution of water through oil spillage and other industrial effluents.
    –   Overfishing leading to depletion of some fish species.
    –   Control of territorial waters where Japan has been restricted from other nations.

                                                                        (3 x 1=3mks)

6.   a)

CROP/YEAR	1998	CT	1999	CT	2000	CT	2001	CT	2002	CT
Maize	27.30	**27.30**	25.00	**25.00**	25.00	**25.00**	30.00	**30.00**	26.00	**26.00**
Beans	3.00	**30.30**	4.00	**29.00**	3.70	**28.70**	4.10	**34.10**	4.00	**30.00**
Sorghum	0.90	**31.20**	1.20	**30.20**	0.90	**29.60**	1.20	**35.30**	0.80	**30.80**
Millet	0.37	**31.57**	0.66	**30.86**	0.40	**30.00**	0.50	**35.80**	0.60	**31.40**

i) Hint – Award general (2) for correct C.T
- Award graph – Title
- Axis
- Bars
- Key
- Variables   (8mks)

ii)Totals for two years

30.00+26.00=56.00

30.00-26.00=4.00

$\frac{4.00}{56.00} \times 100 = \frac{400}{56} = 7.14\%$

iii)

3
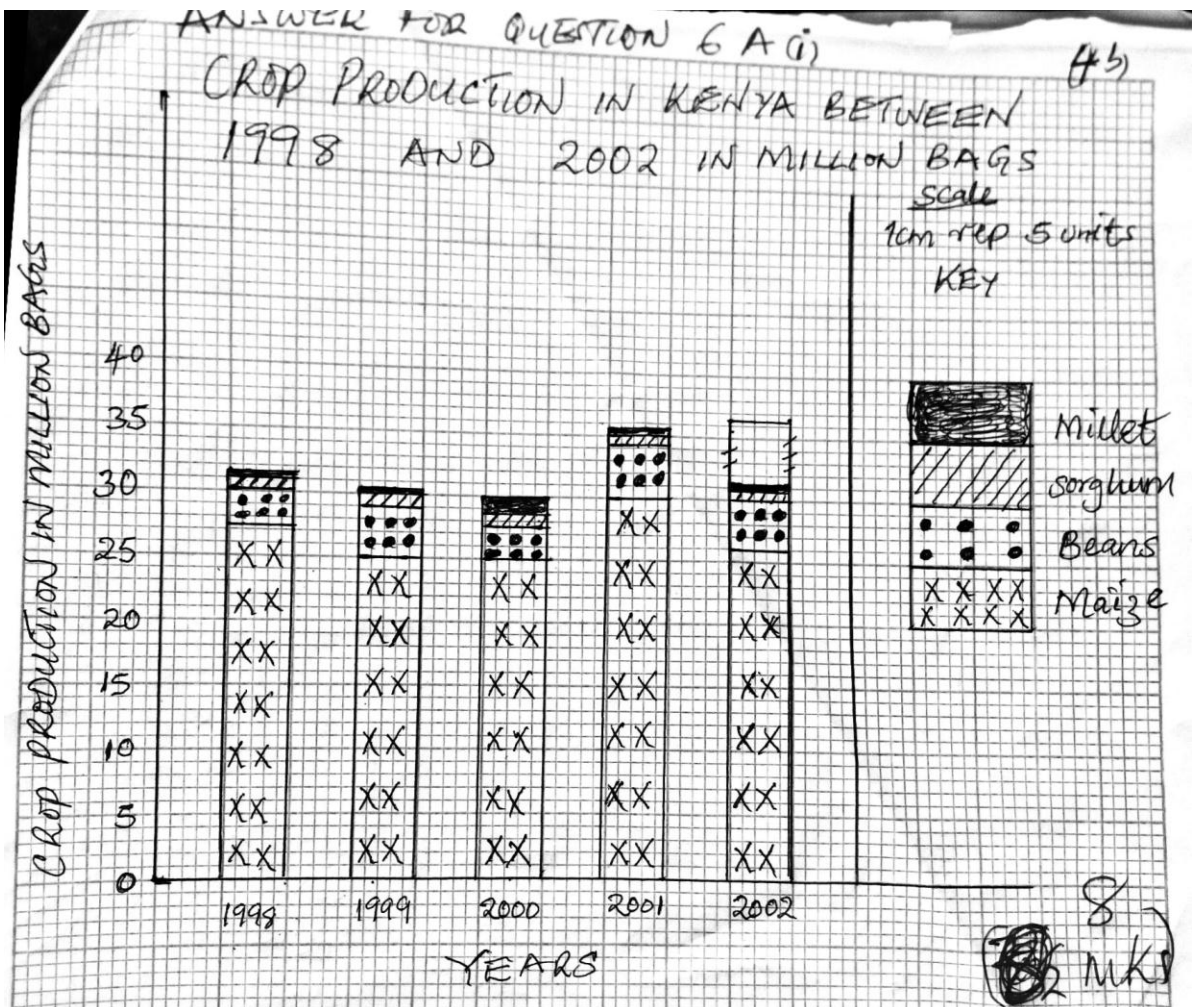
All the crops in 2001 had a higher production than in year 2000   (1 x 2=2mks)

b) i) Methods used to reclaim land in Kenya   (5mks)
- Draining of swamps
- Irrigating dry lands
- Growing drought resistant crops
- Controlling soil erosion
- Afforestation/reafforestation
  Award any other relevant point   (1 x 5=5mks)

ii) Control measures applied to eliminate tsetse flies in Kenya   (6mks)
- Bush clearing –This kills both the adult flies, pupae and destroy their breeding grounds.
- Use of traps in insecticide – Impregnated traps with baits the plies into the traps where they are killed by the insecticides
- Insecticide application by spraying using low flying aircraft   (2 x 3=6mks)

7. a) i) Define wildlife   (2mks)
- Refers to undomesticated animals and plants (fauna and flora) found in their natural habitats
       (2 x1=2mks)

ii) Distinguish between a game sanctuary and a game park   (4mks)
- A game sanctuary is an area set aside for protection of specific animals or birds/endangered species from extinction; while a game park is a place set aside for the preservation of scenery, wildlife and historical sites and its managed by the government(4 x 1=4mks)

iii) National part marked A- Kisite Marine park
   National park marked B – Amboseli
   National park marked C – Ruwenzori   (3 x 1=3mks)

b)i) Factors showing the future of tourism industry in Kenya
- Aggressive promotion by ministry of Tourism through KTB through exhibitions abroad to promote Kenya as a tourist destination and also marketing is being done within, targeting domestic tourists.
- Lowering of tariffs in hotels, games parks and airports taxes so as as to encourage more tourists visits Kenya.
- Strength of the Kenyan shillings depreciation of will attract more tourists since most will find it cheaper to visit Kenya.
- Opening up of new areas with untapped attraction potential eg N.E province around Lakes likeBaringo, Bogoria, turkana.
- Developing of sustainable tourism eg Eco-tourism i.e tourism that involve conservation of the environment.
- Formation of Kenya National tourism master plan to underscore the need to diversity tourist sources, attractions and opening up of new avenues. (**4 x 2=8mks**)

ii) Factors influence wildlife
- Different plants and animals are found in different vegetation zones.
- Natural forests are habitat for elephant'sgorillas, baboons, monkeys, variety of birds and insects.
- Savannah grasslands with acacia trees host a lot of herbivouseg gazelles, wildebeests.
- Woodland savannah is a home for many animals like gazelles, bees and the carnivores as well as they shelter in the bush
- Semi deserts and desert vegetation support hardy animals which can withstand dry conditions eg hartebeest, grant gazelle.   **(2 x 2=4mks)**

iii) Altitude determines the climate and vegetations type
- Very high mountains eg Mt Kenya and Kilimanjaro are too cold, hence absence of animals.
- Different plant formation are therefore found at different altitudes hence also determine type of animals present there.

Savannah is found near the base then the forest, bamboo forest and heath and moorland.

–   (4 x 1=4mks)

8a) i) Types of coffee grown in Kenya
- Arabica
- Robusta
- Liberica   (2 x 1=2mks)

ii) Counties in Kenya where coffee is grown in large scale
- Kiambu
- Meru
- Kakamega
- Nyeri
- Bungoma   (2 x 1=2mks)

b) i) Factors favouring growing of coffee in Kenya
- Moderate temperature/warm to hot conditions with temperature between 14-26^{0}C/30^{0}C
- High rainfall well distributed throughout the year.
- A dry sunny period for harvesting and drying a coffee beans.
- Deep well drained fertile volcanic soils which is slightly acidic.
- High attitudes 1500-2100m
- Gentle sloping /undulating landscape for mechanization and proper soil drainage.
- Availability of labour for planting, weeding pruning and harvesting.
- Availability of shade /shelter from directs sunlight and strong winds.
- Availability of roads within growing areas for faster transportation to the factories

Awards any   (4x 1=4mks)

ii) Stages of coffee processing once it's delivered to the factory
- Harvested berries are taken to the factories where it is deceived and weighed.
- Berries are put in large tanks of water to remove outer covering/pulping
- Beans are then heaped in a tank to ferment between 12-24hrs.
- Beans are then washed in clean water
- After washing, beans are cured by sun drying for a week.
- After curing the beans are peeled by removing the inner husks.
- Beans are then winnowed and sorted.
- Sorted beans are graded according to size and quality
- Packed in sacks of 60kgs ready for export   (9 x 1=9mks)

c) i) Benefits of coffee farming in Kenya
- Earn Kenya foreign exchange from exports.
- Coffee farming – Provides employment opportunities improving standards of living.
- Coffee sales generate income/revenue hence earn farmers living.
- Coffee farming has led to establishment of processing factories. (2 x 2=4mks)

ii) Problems facing coffee farmers in Brazil
- Inappropriate conservation methods where farmers use wasteful methods.
- Soil exhaustion resulting in severe soil erosion low yields.
- Over production leading to reduced market price.
- Fluctuation to world prices discouraging farmers due to low prices and profits
- Competition from other coffee producing countries lead to low prices discouraging farmers.

(4 x 1=4mks)

9 a) i) By-products of crude oil

- Bitumen
- Petrol
- Diesel
- Kerosene
- Fabricating oil

ii) Ways through which occurrence of minerals is influenced
- Vulcanicity
- Weathering
- Evaporation
- Erosion
- Sedimentation
- Metamorphism   (4 x 1=4mks)

b) Contribution of mining industry to economy.
- Generate revenue used to finance development
- Attracts development of transport and communication network
- Contributes to urbanization as towns develop near mining areas.
- Creates employment opportunities to miners
- Enhances development of mineral processing industries and other industries.
                                                                    (4 x 2=8mks)

c) Minerals found in the following areas in East Africa
- Kariandusi- Diatomite
- Kerio Valley – Fluorspar
- Kwale county – Titanium
- Lake Magadi – Soda Ash   (4 x 1=4mks)

d) State four factors influencing mineral exploitation   (4mks)
i) Exploitation
- Value of the mineral
- Size of mineral reserve
- Quality of the ore
- Demand of the mineral
- Availability of labour
- Level of technology
- Political influence
  Award only the well stated point   (4 x 1=4mks)

ii) Uses of Gold
- Making Jewellery
- Used as a store of wealth
- For decoration purposes   (2 x 1=2mks)

10 a)i) Differentiate between pelagic and demersal fish (2mks)
- Pelagic fish are type of fish that live near the surface/ at shallow depths in shoals and they are small in size while demersal fish live at / close to the sea bottom singly and they are large in size
  ii) List two examples of demersal fish (2mks)
- cod
- Halibut
- Dogfish

- Haddock
- Hake
- Flounder
- Catfish

b) Outline four reasons why fresh water fishing is more popular in east Africa than marine fishing (4mks)
- Fresh water fishing requires simple euipments which are cheaper to buy
- Presence of many inland fishing grounds in the region
- The East African coastline is regular hindering presence of fish
- East African countries have inadequate / poor technology for deep sea fishing
- There is high demand for fresh water fish than marine fish.

c) i) Name the Ocean current that makes the coastal water of U.S.A ice free during winter (1mk)
- The warm gulf stream current

ii) Explain four factors that influence fishing in the North West pacific fishing ground (8mks)
- The convergence of cold oyasiwo and warm kurosiwo currents results in cool / ice free water ideal for fish breeding / upwelling of water which nutrients close to the surface
- Presence of broad continental shelf favouring the growth of plankton causing accumulation of fish
- The coastline is highly indented hence well shettered which favour fish breeding / for port development
- The adjacent land is highly mountainous which discourage agriculture and hence fishing is alternative economic activity
- Availability of large ready market offered by Asian countries with high population
- Presence of advanced technology for ship building / net making / modern vessels support deep see fishing.
- Modern and efficient transportation facilities which allow movement of fish to the market on time.

d) Form four students from a school in Kisumu carried out a field study on fishing in L. Victoria

i) State one objective that they could have used for the study (1mk)
- To find out the economic benefit of fish to the local community
- To establish the problems faced by fishermen in the lake.

ii) State the reasons why the students needed a route map during the study (2mks)
- To establish the shortest route to follow
- Helps to determine the cost of the journey
- Helps to plan for the days activities
- Helps to estimate the distance

iii) Give three advantages of studying fishing through field work (3mks)
- Learners get firsthand information
- Learners appreciate / interact with the environment
- Breaks the classroom monotony / arouses interest
- Learners acquire skills
- Enhances learners visual memory

iv) State two problems which they noted is faced by fishermen in Lake Victoria (2mks)
- Presence of water hyacinth hindering movement of fishing vessels
- Some strong waves / storms lead to capsizing of their boats
- Frequent harassment by security agents from neighbouring country
- Reduced stock of some fish species