312/2
GEOGRAPHY
Paper 2
TIME $2^3/_4$ Hrs

MOMALICHE CYCLE 8

Kenya Certificate of Secondary Education (K.C.S.E.)

GEOGRAPHY

Paper 2

TIME $2^3/_4$ Hrs

INSTRUCTIONS TO CANDIDATES:

- *This paper has two sections **A** and **B***
- *Answer **All** questions in Section **A***
- *In section **B** answer question **6** and any other **two** questions.*
- *All answers must be written in the answer sheet provided.*

This paper consists of 4 printed pages. Candidates should check to ascertain that all pages are printed as indicated and that no questions are missing.

SECTION A

1a .Differentiate between Afforestation and Reafforestation (2mks)

. Afforestation refers to the planting of trees where there were no trees while Reafforestation is the planting of trees where they have been cut.

b. State three economic uses of mangrove forests in Kenya.(3mks)

. Poles are exported hence earning the country foreign exchange.
. Poles are used in building and construction.
. Mangrove trees are source of fuel.
. Mangrove forests promote aqual-culture.

2a. Identify three exhaustible sources of energy.(3mks)

. Petroleum
.Coal
. Uranium
. Natural gas

b. State three reasons why use of coal as a source of industrial power has declined.(3mks)

. Coal has a low calorific value
. Coal is bulky and difficult to transport.
. Coal is difficult and expensive to exploit.
. Exhaustion of accessible mines.
. Discovery of other forms of energy
. Pollutes the environment

3a. List two counties where maize is grown on large scale in Kenya. (2mks)

. Trans Nzoia
. Bungoma
. Uasin Gishu
. Nakuru
. Kakamega
. Narok

b. State three problems facing wheat farming in Kenya. (3mks)

. Inadequate capital to purchase farm inputs.
. Pests and diseases e.g stem rust, quelea birds which destroy wheat.
.Fluctuation of prices causing uncertainities/demoralizes farmers
. Few storage facilities leading to produce destruction.
. Climatic hazards such as drought hence lowering yield.

4a. Define the term Domestic tourism.(2mks)

. It refers to visiting by citizens of a country to places of interest within the Country.

b. Outline three coastal tourist attractions in Kenya. (3mks)

. Sunny sandy beaches
. Historical sites
. Culture of the people.
. Haller park/ Marine parks/Nature trail.
. Sports fishing

5a. Name two exotic breeds of dairy cattle reared in Kenya. (2mks)

. Aryshire
. Alderney
. Guernsey

. Swiss brown
. Jersey
. Freshian

b. State three physical conditions that favour dairy farming in Denmark. (3mks)
. Gentle sloping landscape suitable for grazing.
. Warm sunny summer/moderate temperature which allows outdoor grazing.
. Cool climate suitable for growing of pasture.
. Moderate to highs rainfall that support grass growth.
.Boulder clay soil which supports growth of pasture.

SECTION B

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

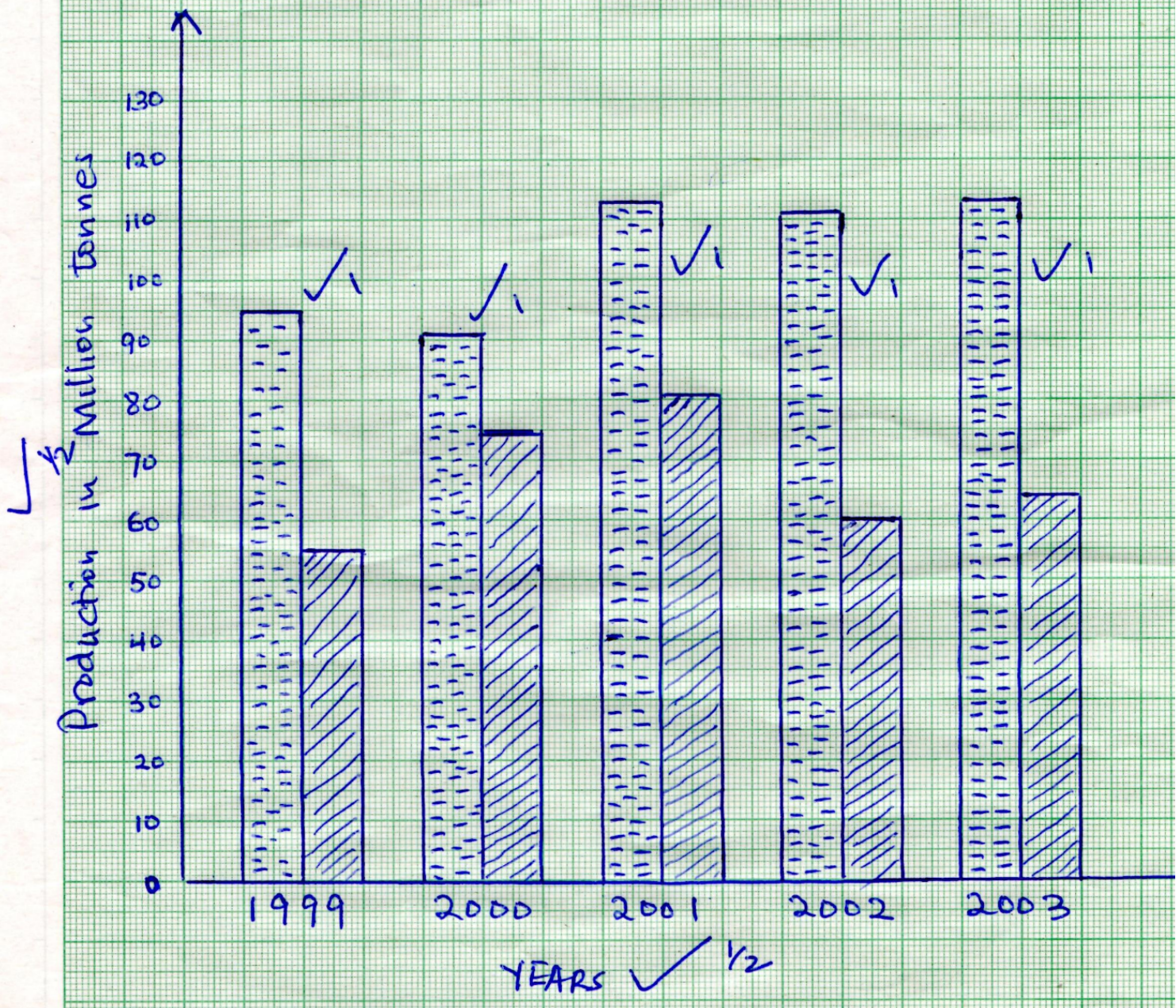
6. a) Study the table given below and answer the questions from this section.
TEA AND WHEAT PRODUCTION IN MILLION TONNES IN KENYA BETWEEN 1999 – 2003

CROP	1999	2000	2001	2002	2003
WHEAT	55.4	73.8	81.5	60.1	64.4
TEA	94.9	91.0	113.0	111.0	113.0

i) Construct a comparative bar graph to present the data above. (Use 1cm . 10million tonnes) 8mks

Comparative bar graph showing tea and wheat production in million tonnes in Kenya between 1999 and 2003. ✓1

Scale 1cm represent 10 million tonnes



✓½ ✓1 ✓1 ✓1 ✓1 ✓1 ✓½

Wheat. ✓1

Tea

Title – 1
Labelling axes – 1
Bars – 5
Key – 1

8 MKS.

ii) **State two advantages of using comparative bar graphs.** 2mks

- Gives a clear visual impression of variables presented.
- Easy to read and interpret
- It is easy to construct
- The bars emphasize quantities very well

- Enables comparison of similar components across the different sets of bars

(Any 2 x 1 = 2mks)

iii) **Comment on the trend of wheat production over the period.** 2mks

- There was increased in production from 1999-2001
- There was a drop from 2000-2003
- There was an increase in the year 2003

(Any 2 x 1 = 2mks)

b) **State four physical conditions that favour wheat farming in Kenya.** 4mks

- Cool to warm temperatures/15°C-20°C
- Moderate to high rainfall/500mm – 270mm
- Deep √, well drained √, volcanic/loam/light clay soils
- Gently or fairly level land for proper drainage and to allow mechanization
- Warm/dry sunny spell which enhances ripening of wheat and harvesting

(NB: Not a must for student to sate measurements: Any 4 x 1 -= 4mks)

c) i) **Describe how oil palm is processed in Nigeria.** 6mks

- Bunches are put in tube-like cages with holes all around
- Then cooked in the steriliser by hot steam to ensure they don't change into fatty acids
- Bunches are shaken off stocks using a machine called stripper them cooked on digesters
- The pericarp is separated from the nut in a process known as depulping then pressed to remove the oil.
- The oil is left to settle in tanks so that impurities settle at the bottom
- The nuts are cracked to remove the kernels using grinders
- The kernels are pressed to produce oil or may be packed whole and exported

(6 x 1 = 6mks)

ii) **State three uses of palm oil.** 5mks

- Used for production of soap and paints
- Used for cooking, lighting and polishing
- Sap from the steam used to produce palm wine
- Kernel used for manufacturing cosmetics, hair oils and pomades
- Used as a cleaning agent in industries

(NB: uses of tree not accepted . 3 x 1 = 3mks)

7. **(a) (i) Differentiate between Pelagic fish and demersal fish.** *(2mks)*

- Pelagic fish live in the water near to the surface or at shallow depth while demersal fish live in the deeper waters close to or on the bottom of water bodies.

(ii) State economic factors that favour fishing. *(4mks)*

- Availability of capital
- Reliable communication
- Availability of advanced technology
- Presence of ready market
- Presence reliable transport. (*4x1=4mrks)*

(b) (i) Define fish farming. *(1mk)*

- This refers to rearing of fish in fish ponds.

(ii) Reasons why the Government of Kenya is encouraging fish farming. *(8mks)*

- Contributes to meeting the demand for food e.g. Animal proteins by increasing the supply to the local population.
- To create more employment opportunities so as to raise the living standards / minimize unemployment.
- Allow better use of land / water resources e.g. pond swamps / requires little space to establish.
- Fish farming is free from inter-territorial conflicts and disputes unlike marine fishing.
- Fish farms are easier to manage compared to marine fishing.

Any 4x2=8 mrks

(c) Reasons why marine fishing is less popular in East African Coast. *(4mks)*

- East Africa has a regular coastline which is not suitable for breeding of fish.
- It has a narrow continued shelf which are not suitable for existence of plankton.
- Inadequate capital to buy expensive equipment's required in sea fishing.
- Sea fishing is not popular amongst people of East Africa.
- Face stiff competition in open seas from developed countries.
- Low level of technology limit deep sea fishing.

Any 4 x 1 4mrks

(d) Conditions that favour fishing in shaded coastal waters. *(6mks)*

- Cool climate in these regions provides ideal temperature for survival of numerous species of fish.
- Warm north pacific current that flows along the coastline raises the temperature of water making it ideal for growth of planktons.
- Indented coastline with several fields provides secure breeding grounds for fish / bays sheltered from strong winds.
- Extensive shallow continental shelf along the coast favours fish breeding.
- Rugged landscape / dense forest cover & rocky surface discourage agricultural activities.
- Fishing is alternative economic activity/rugged landscape.
- Advanced technology in the region has assisted in providing fishing equipment / deep sea fishing.
- Presence of good fishing ports such as prince Rupert, New port makes it easier to access foreign markets.

Any 3x2=6mrks

8.) a.) i.) Differentiate between land reclamation and land rehabilitation (2 marks)

- Land reclamation is the process of converting *wasteland* into farm land for growing of

crops and keeping of animals while land rehabilitation is the process of *restoring land* to its former productive state.

b.) Identify three methods of land reclamation in Kenya (3 marks)

- Irrigation
- Drainage of Swamps
- Control of Pests
- Bush clearing

c.) i.) State four physical factors that influenced the location of Mwea Tebere irrigation scheme (4 marks)

- Availability of extensive land which made created room for future expansion.
- Black cotton soils with high water retention capacities suitable for rice growing.
- Freely draining clay loamy soils suitable for growing of other cash and food crops.
- Gently sloping land which allows use of tractors and allows water to flow by gravity reducing the cost of pumping it to the fields.
- Availability of plenty of water from permanent rivers Thiba and Nyamindi draining the area.
- Experiences warm weather during the second part of the year suitable for rice growing.

ii.) Explain four problems facing Mwea Tabere irrigation scheme (8 marks)

- **Stagnant water** has become a breeding ground for mosquitoes and snails which transmit malaria and Bilharzia respectively
- **Shortage of water** due to excessive droughts and diversion of water into 'Jua Kali' rice farms.
- **Pests and diseases** e.g. case warm and leaf miner which attack crops lowering the yields and Quelea birds which feed on rice leading to a major loss of the crop.
- **Inadequate capital** on the part of farmers since the co-operatives collapse making them unable to acquire inputs forcing them to lease out all or part of their farms.
- **Shortage of labour** during the planting and harvesting season which forces the farmers to hire labour from outside at a high cost.

d.) i.) Outline the stages that were involved in reclamation of land from the sea in Netherlands (5 marks)

- Dykes were constructed to protect the land from getting flooded during high tide.
- Ring canals were constructed to carry water from the area to be reclaimed into the sea.
- Pumps were installed to pump out water from the area enclosed by dykes.
- Reeds were sowed to use up excess water.
- Drainage pipes were laid in ditches to drain water from the water table.

- The soil was treated with chemicals to lower salinity.
- Drained land was flushed with fresh water to remove salt from the soil.

ii.) State three benefits of irrigation farming in Kenya (3 marks)

- Resettlement of landless people e.g. in Mwea.
- It has made barren land reproductive.
- Enables farmers to earn an income when they sell farm produce.
- Provision of employment opportunities which has alleviated poverty and improved the standard of living.
- Earning of foreign exchange by the country after exportation chillies, flowers, peas, fruits, etc.
- Promoted industrial development through providing raw materials e.g. rice mills, pineapple processing, sugarcane factories, etc.
- Has assisted in the control of environmental hazards such as droughts and floods.
- Has enhanced food security in the country by encouraging growing of food crops such as maize, beans, rice, etc

9. **(a) Why the government encourages the jua kali sector.** ***(4mks)***

- Require little capital to start
- They reduce rural-urban migration as it is a way of decentralizing industries.
- They encourage technological invention and improvement of the existing technology.
- Use locally available raw materials
- Produce cheap consumer goods
- They create employment opportunities
- They earn the government revenue through taxation.

Any 4 x1=4mrks

(b) Examples of Jua kali industries .(3mks)

- Wood carvings
- Pot making/pottery
- Weaving of basket and mats
- Scrap metal fabricators
- Carpentry
- Shoes and sandal making

Any 3x1=3mrks

(c) Role played by the cottage industry in Kenya. *(10mks)*

- Provision of employment hence raising living standards
- Formation of co-operative societies which helps the producers to compete with large scale industries.
- They reduce rural urban migration
- They help in the development of technical and business skills enabling the workers to acquire industrial and managerial skills.
- Produce goods which are cheaper and affordable to most people.
- Help in the distribution of goods and services in the rural areas

Any5x 2 = 10 mrks

(d) (i)Factors that favour the location of the iron and steel industry in the Ruhr region. *(6mks)*

- The Ruhr region is centrally located in Europe. This offers easy access to all parts of Europe.
- Abundance of power (coal, oil, and HEP from the region) which is required in the iron and steel industry
- Presence of navigable rivers (Rhine, Lippe e.t.c) which provide cheap water transport for raw materials and finished goods.
- Presence of raw materials (coal, iron ore and limestone) from within the region.
- Availability of capital from the rich companies and Krupp family) to develop the industry.
- The dense population in central and western Europe provides a ready market

Any3 x2 = 6 mrks

(ii)Other industries located in the Ruhr region. *(2mks)*

- Engineering
- Textile industry
- Oil refining
- Electronics
- Service industries e.g. banking
- Manufacture of cutlery and surgical instruments

Any2x1=2mks

. 10.) a.) i.) Define mining (2 marks)

- It is the process of extracting valuable minerals both solid, gas or liquid from the earth's crust.

ii.) Explain how the following factors influence mining

- Quality of the mineral ore (2 marks)

- Mining can be done if the mineral deposits have high mineral content because they are economical to work on but deposits with low mineral content are rarely worked on except if the mineral in them is rare e.g. uranium.

- Capital (2 marks)

- Inadequacy of capital causes developing countries not to exploit minerals and leave it to international companies because a lot of money is needed for exploration, infrastructure, salaries, energy etc.

b.) Describe how the deep shaft method of mining is carried out (6 marks)

- Vertical shafts are sunk into the earth's crust to reach the layer with the mineral.
- Horizontal tunnels/galleries are dug from the vertical shaft to reach the vein of the mineral bearing rock.
- The mineral bearing rock is blasted loose by explosives.
- The mineral is transported along the shaft by light railway or conveyor belt.
- It is then brought to the surface by a type of a crane or a lift called cage which also transports miners and their equipment to and fro the working level.
- The galleries are supported by timber pit props or steel concrete beams which are erected to support the roof to prevent it from collapsing. It should also be well ventilated and kept free from water.

c.) i.) Give two uses of soda ash (2 marks)

- It is used in the manufacture of glasses and bottles.
- It is used in the manufacture of soaps and detergents.
- It is used in softening water in paper making.
- It is used in textile industry.
- It is used in oil refining.

ii.) State the contributions of soda ash mining to the economy of Kenya (5 marks)

- Soda ash mining has led to urbanization e.g. growth of Magadi town ship.
- It has led to development of social amenities such as hospitals and schools
- It has led to development of infrastructure e.g. railway line from Konza to L. Magadi.
- Soda ash mining has provided employment opportunities e.g. the Magadi Soda Company employs many people.
- Export of soda ash earns Kenya a substantial amount of foreign exchange

d.) Explain three problems facing mining (6 marks)

- **Inadequate capital** –This makes mining is left to multinational companies who pocket all the money to recover mining cost.
- **Inaccessibility of some areas.** This is due to poor transport and infrastructure which makes prospecting and mining difficult.
- **Insufficient skilled personnel** This causes dependence on expatriates who are expensive to pay, thus reducing the profits accruing from mining.
- **Control by foreign companies** e.g. Tullow Oil thus making most of the mineral revenue to end up to them as salaries and dividends.
- **Occurrence of minerals in very small deposits**. They are not economically viable e.g. Nyiru in Turkwel has very small deposits of beryl, asbestos and copper which makes mining to be very expensive/low profit.
- **Land use conflicts**. This affects mining e.g. in Kwale, the mining of Titanium has been hindered by a conflict between Tiomin and the local people due to inadequate compensation/expensive reducing profit