

- The softwood trees produce high quality paper.
- The forests are easy to manage scientifically.
- The softwood trees are easy to cut/harvest and transport.

Any 3x1 = 3 marks only.

2. a) State two objectives of the Southern African Development Community (SADC).

- To promote regional integration/unity.
- To facilitate trade and economic liberalization.
- To eradicate/reduce poverty.
- To establish a common market.

Any 2x1 = 2 marks only.

b) Which two navigational challenges does the St. Lawrence Seaway face?

- The natural rocks barriers.
- The water falls and rapids along the seaway.
- The many islands along the seaway.
- The shallowness of the seaway.
- The freezing of water in winter.
- The fog/mist presence at the mouth of St. Lawrence River.
- The location of the Great Lakes at different altitudes.

Any 2x1 = 2 marks only.

c) Give two characteristics of sedentary subsistence agriculture.

- Farmers live in one permanent place.
- Crop rotation is practiced.
- Farming is labour intensive.
- Animals are domesticated in the farm for ploughing/meat/milk production.
- Fields left fallow after their productivity decline are frequently reused.
- Land utilization is carefully done to guard against possible deterioration.

ALLIANCE HIGH SCHOOL



GEOGRAPHY PAPER TWO-312/2

KENYA CERTIFICATE OF EDUCATION (K.C.S.E)

SEPTEMBER 2022

MARKING SCHEME = 10 QUESTIONS

SECTION A = 25 MARKS

1. a) Name two natural forest blocks in the Coastal Region of Kenya.

- Shimba Hills Forest
- Arabuko-Sokoke Forest Reserve
- Kaya Forests
- Tana River Forests
- Boni/Dodori Forests
- Mangrove Forests

Any 2x1 = 2 marks only.

b) Identify three reasons for the high preference to develop softwood forest plantations in Kenya.

- The softwood trees mature fast/25-30 years.
- The softwood trees can be put into a very wide range of uses.

- The easy access to sanitation facilities.
- The high funding of elders welfare by the government/municipalities.
- The high standards of healthcare system/high medical facilities and personnel.

Any 3x1 = 3 marks only

b) Give three negative effects of international population migration to the Countries of origin.

- The loss of potential workforce.
- Brain drain/the loss of many skilled workers.
- The development of serious gender disparities/imbbalances.

Any 3x1 = 3 marks only.

5. a) Identify two fossil fuels.

- Petroleum/Crude oil.
- Coal.
- Natural gas.
- Peat

Any 2x2 = 2 marks only.

b) State two reasons why the use of alternative types of energy is encouraged in Kenya.

- Mostly significantly clean/non-environmental pollutants.
- They are inexhaustible once well managed/they are renewable.
- They are conveniently/easily despatchable/transmittable.
- Some of them can be stored for future use.

Any 2x1 = 2 marks only

- Cultivated crops are carefully identified by the farmers.
- Simple/small tools are used in the farms.
- High-yields are realized from the farms.
- The cultivation of cash crops or collection and sale of forest products takes place in some parts of West Africa and South East Asia.

Any 2x1 = 2 marks only.

3. a) Give two ways in which the River Rhine contributed towards the development of the iron and steel industry in the Ruhr Region of Germany in the 19th century.

- The supplying of water for cooling machines.
- The providing of cheap water transport for inputs/raw materials/finished products/ steel.
- The conveyance of treated industrial waste to predetermined destinations/the general cleaning in the industry.

Any 2x1 = 2 marks only.

b) State two features of the cottage industries in India.

- Relatively low capital investments.
- Relatively use simple tools.
- Predominantly use locally available materials.
- Finished products are largely consumed/sold locally/ in India
- Largely labour-intensive.
- Widespread throughout the country/they are ubiquitous.

Any 2x1 = 2 marks only

4. a) Why does the population of Sweden experience a very high life expectation?

- The active participation of people in community activities.
- The high vaccination of children
- The low poverty levels.

b) Explain four roles played by the co-operative societies in the development of dairy farming in Denmark.

- They conduct thorough research on dairy farming geared towards enhancing higher productivity.
- They conduct thorough market research intended to pave way towards increased dairy products sales.
- They provide financial support to the dairy farmers for the advancement/investment in the dairy farming industry.
- They process milk received from the farmers which yields into various invaluable products.
- They educate farmers to render the dairy farming industry efficient in productivity.
- They provide farmers with commendable banking facilities/services for the smooth financial transactions from time to time.
- They provide farmers with farming facilities at subsidized rates to enhance the production of milk/sustain their dairy animals.

Any 4x2 = 8 marks.

c) Identify three economic benefits of commercial beef farming to Kenya.

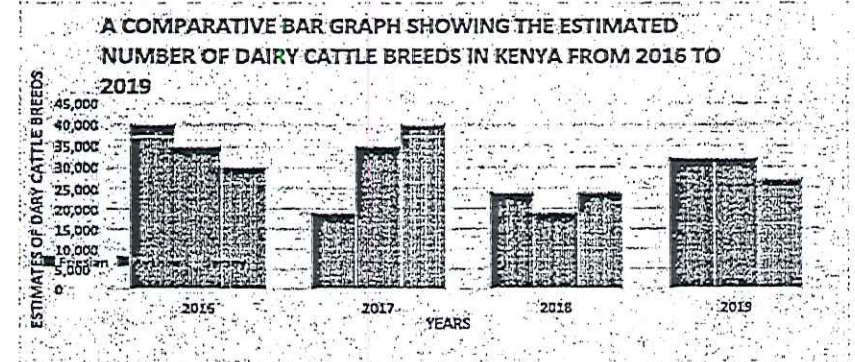
- The creation of many employment opportunities to people
- The generation of substantial income to the farmers.
- The development of processing/manufacturing industries.
- Exporting beef earns the country foreign exchange.
- A source of government revenue from the taxes collected from large scale beef farming investors.
- The development of roads in the beef farming areas.
- Local beef production leads to the saving of foreign exchange.
- The promotion of food security in the country.

Any 3x1 = 3 marks only

SECTION B: 75 MARKS; ANSWER QUESTION 6 AND ANY OTHER TWO QUESTIONS IN THIS SECTION.

6. a) i) Draw a comparative bar graph to represent the above statistical data. Use a

vertical scale of 1cm to represent 5,000 dairy cattle.



Distribution of marks.

Title	=	1 mark	X-axis	=	1 mark
Key	=	1 mark	Y-axis	=	1 mark
Each bar	=	½ mark	Total	=	6 marks

ii) State three advantages of using a comparative bar graph to represent statistical data.

- Gives a good visual impression.
- Easy to read.
- Easy to interpret.
- Easy to draw/construct.
- Easy to make comparisons of the various components.

Any 3x1 = 3 marks only.

c) Give four ways by which mining derelict landscapes can be rehabilitated.

- By planting trees.
- By introducing aquaculture.
- By refilling the depressions/mines/holes.
- By creating a park to attract tourists.
- By landscaping the area for settlement/agriculture.

Any 4x1 = 4 marks only

d) i) Explain how petroleum is formed

(4mks)

The remains of plants /animals/organisms settled on the sea floor millions of years ago.

They mixed with mud at the bottom of the sea to form sediments

Over millions of years sediments piled and exerted pressure over the organic remains converting them to compounds of carbon and hydrogen to form petroleum/oil and gas .

OR

As oil was being formed, earth movements caused it to be trapped between non-porous rocks such as shale under high pressure to create pools of oil and gas.

ii) Explain three problems associated with the exploitation of petroleum in the Middle East

Countries.

- The increased international terrorists attacks which scares foreigners/workers from those countries.
- The frequent political conflicts/wars which cause fear and death among the workers/derails exploitation operations.
- The negative fluctuation of petroleum prices which demoralizes investors in production ventures.
- The oil spillage which leads to huge losses to the producing companies.

7. a) i) Name the mining towns labeled J, K and L.

J = Tororo Town

K = Magadi Town

L = Mwadui Town

Each 1 mark = Total 3 marks only

ii) State three factors which influence the mode occurrence of minerals.

- Rock metamorphism.
- Volcanicity process.
- Weathering process
- Evaporation process.
- Sedimentation process.
- Erosion process.

Any 3x1 = 3 marks only.

b) Describe the extraction of gold in South Africa using the shaft method.

- Vertical shafts are sunk deep underground upto the level of the mineral ore.
- Horizontal tunnels or galleries are dug to reach the mineral ore.
- Pit props are constructed to support the horizontal tunnels from collapsing.
- Once reached, the mineral ore is blasted by explosives/dynamites.
- Broken pieces of the mineral ore are collected and transported to the base of the vertical shaft by a light railway.
- The mineral ore is then hoisted to the surface using cages.

Any 5x1 = 5 marks only

- The basket is placed in lakes, ponds and rivers with the mouth facing the direction from which the water flows.
- A bait is placed in the basket to attract fish.
- The basket is held in a steady position by using ropes, stones and sticks.
- The basket is left in that position for sometime/overnight for fish to be trapped.
- The basket is finally removed for the manual emptying of the trapped fish in readiness for processing.

Any 4x1 = 4 marks only

ii) Drifting fishing method.

- A rectangular shaped drift net is used which is attached to a drifter by a strong rope.
- The drift net is cast into the sea from a drifter and placed a few metres below the water surface.
- Floaters are fixed on the upper edge of the net and weights below to have it properly stretched.
- Once the fish swim through the net, they are entangled by the gills as they cannot move forwards or backwards.
- Once huge quantities of fish, have been entangled, the net is hauled onto the drifter to manually remove them for the processing task to be pursued.

Any 4x1 = 4 marks only

d) Explain four physical factors which favour fishing in the North West Pacific fishing ground.

- The broad continental shelf with plentiful of fish for long-term exploitation
- The vastly indented coastline for fish breeding/development of fishing ports.
- The shallow continental shelf which is well sunlit allowing the abundant growth of plankton which finally attract large quantities of fish.
- The mountainous landscape which hinders agricultural development compelling the people to switch to fishing for food security/economic prosperity.

- The many foreign companies in petroleum production which repatriate earnings to their mother countries.
- The reliance on skilled foreign workers in petroleum production who are very costly to sustain due to the low levels of technology/skills among local people.
- The very high temperature conditions which cause discomfort to the workers exploiting petroleum.
- The burning of petroleum which discharges carbon dioxide into the atmosphere heightening the gravity of global warming/climate change.

Any 5x2 = 10 marks only.

8. a) Differentiate marine fish from fresh water fish.

- Marine fish spend their entire life in the saline oceans/seas while fresh water fish live in fresh inland water bodies such as streams, river, fresh water lakes and ponds

1x2 = 2 marks only

b) Excluding the North West Pacific fishing ground, name three other major fishing grounds of the world in the northern hemisphere.

- North East Atlantic fishing ground.
- North West Atlantic fishing ground.
- North East Pacific fishing ground

3x1 = 3 marks only

c) Describe the following methods of fishing:

i) Basket fishing method.

- A woven basket is used.
- The mouth of the basket has no return valve to prevent the outward movement of fish.

- The need for high security.
- The social life of people opting to live in clusters.
- The government policy on settlement development

Any 4x1 = 4 marks only.

b) Discuss four economic factors which facilitated the development of Eldoret town.

- The development of the Eldoret International Airport which has enhanced global investors connectivity/transportation of horticultural produces.
- The good road/railway transport which has facilitated the movement of trader in and out of the town.
- The development of industries which influenced people migration into the town looking for good jobs.
- The vast agricultural hinterland providing materials for industries/trading transactions
- The many financial institutions which facilitate trade transaction.

Any 4x2 = 8 mark only

c) Explain four social problems facing the Cities of New York and Nairobi.

- The high rate of criminal activities which causes death to the people/scares away investors.
- The decadence of moral standards/development of prostitution which escalates into the development of sexually associated diseases.
- The high rate of unemployment which generates the occurrence of criminal activities/stressful conditions among the people/residents.
- The inadequate housing facilities which leads to the development of ghettos/slums.
- The limited social amenities such as schools/health centres which leads to congestion/inappropriate standards/services.

Any 4x2 = 8 marks only

d) Identify four environmental problems caused by urbanization.

- The pollution of the land due to the haphazard/reckless waste disposal management.

- The convergences of the cold OyaSiwo Ocean Current with the warm KuroSiwo Ocean Current creates cool water conditions/oxygenated water for fish to thrive in/allows fishing to take place throughout the year as the water is ice-free.

Any 4x1 = 4 marks only.

e) Give four ways in which climate change negatively affects fisheries.

- Prolonged drought occurrence leads to the drying up of fisheries/reduction of the water capacity to accommodate fish resources.
- Very high temperatures influence fish migration to cool suitable environments.
- The flooding of fisheries due to very high precipitation causes siltation which interferes with the fisheries habitats.
- Rise in sea levels due to increased precipitation spreads salinized waters to fresh water fisheries.
- Ocean waters warming due to increased temperature destroys parts of the coral reef where certain species of fish live.

Any 4x1 = 4 marks only.

9. a) i) Name the predominant settlement pattern above.

- Nucleated/Clustered settlement pattern.

1x1 = 1 mark only

ii) State four factors which influence the development of the above settlement pattern.

- The concentration of social amenities in a particular place.
- The presence of factories/industries in one place.
- The presence of large plantations in an area.
- The availability of water resources in a particular place.
- The presence of mineral resources in a particular place which are being exploited.
- The limited space of land for many people to settle.

b) Give two reasons for the establishment of Mwea irrigation scheme (2 marks)

- To occupy detainee labour. Mwea was a major detention centre.
- To utilize the black cotton soils in growing rice
- To increase agricultural production
- To settle / create employment for the former detainees.

ii) State three locational factors that influenced the setting up of Mwea irrigation scheme

(3 marks)

Physical factors

- Presence of black cotton clay soils found in the area are suitable for irrigation because they retain water. Rice cultivation require flooded fields.
- The gentle sloping land allows water to flow to the farms by gravity which reduces the cost of pumping water.
- The presence of two permanent rivers, Thiba and Nyamindi which provide abundant water supply for irrigation throughout the year.
- The availability of extensive land made it possible for the project to succeed since there was enough room for future expansion.
- The area experiences warm climate during the second part of the year which is suitable for the growing of rice.
- The unreliable and inadequate rainfall received in the area makes it appropriate and necessary for irrigation to be practiced.
- Human factors
- The area is sparsely populated due to the semi-arid conditions hence there was minimal displacement of people to give room for the establishment of the scheme.
- There was availability of cheap labour due to the presence of farmer detainees in the area.

- The noise pollution from the noisy factories/industrial operations.
 - The pollution of water due to the discharge of untreated wastes/chemical effluents into prevailing water bodies.
 - The increased urban surface run-off due to the impeded ground seepage of water.
 - The destruction of wildlife habitats/plant ecosystem to create space for houses/constructions.
 - The pollution of the air originating from factories/industrial fumes/smoke.
 - The predominant nocturnal light which affects certain animal life patterns.
- Any 4x1 = 4 marks only.

10. a) Define land rehabilitation.

- The process of restoring wasted land to its former production state.
 - The process of recovering/restoration of land which has been misused/destroyed through human activities.
- Any 1x2 = 2 marks only.

ii) State three methods used in tsetse fly control.

- By bush clearing to scale down the high humidity conditions which eventually kills adult tsetse flies and their pupae.
 - By application of insecticides particularly DDT. A suitable dosage is sprayed from a low-flying aircraft/the ground in the targeted areas which kills the tsetse flies.
 - By sterilization of the male tsetse flies which hampers fertilization in the female tsetse flies once mating takes place.
 - By using v-shaped baited traps of a black cloth. The cloth has a longitudinal opening along the lower side and a collection trap in the upper side. Tsetse flies are captured once they fly into the net.
- Any 3x2 = 6 marks only.

- The pollution/salinization of inland waters was reduced leading to improvement of soil quality/productivity.
- The increased agricultural land which guaranteed food security/economic growth.
- Roads were constructed precipitating fast economic development in various sectors.
- Recreational facilities were created which attract many tourist becoming a source of income/foreign exchange for investment in other economic developments.
- Flooding was brought under control which saved people from death/displacement/protected farmlands from being damaged.
- Large fresh water reservoirs were created for domestic/industrial/agricultural use

Any 5x2 = 10 marks

- The area is located near major urban centres such as Nairobi, Embu, Thika and Nyeri which offers immediate market for rice produced.

c) i) Describe the stages of land reclamation from the sea in the Netherlands.

- Once the land has been identified, protective dykes against flooding during high tides are constructed.
- Ring canals are constructed to drain water from the reclaimed land into the sea/developed fresh water lakes.
- Pumping stations are installed to pump out water into the sea from the dykes enclosed area.
- Reeds are grown to desalinate the soil/take up excess water/dry the soil.
- Draining ditches/pipes are cut in the land/laid down to facilitate the draining of water from the water table.
- The soils are flushed with fresh water/treated with chemicals to scale down the salinity conditions/levels.
- The pumping out of water from the polders is a continuous process to prevent the accumulation of water in the polders/reclaimed lands.

Any 5x1 = 5 marks

ii) Identify two polders in the Netherlands within the Zuyder Zee project area.

- South Flevoland Polder
- Eastern Flevoland Polder
- North Eastern Polder
- Markerwaard Polder
- Wieringermeer Polder

Any 2x1 = 2 marks only

d) Explain five benefits of the Delta Plan Project to the Netherlands.