FORM FOUR CLUSTER KCSE MODEL1

GEOGRAPHY PAPER 2 ANSWER

SECTION A (25 Marks)

Answer all the questions in this section

1. **a) What is floriculture** (2 marks)

   - The intensive cultivation of flowers for commercial purposes. 1x 2=2 marks

   b) State three characteristics of horticulture farming in Kenya. (3 marks)

   - Farms are generally small in size/few large ones.
   - Intensive use of land for maximum produce.
   - Mostly done under green houses especially for flowers.
   - Use of irrigation water.
   - Labour intensive needed.
   - Capital intensive invested to build green houses, buy inputs and install facilities.
   - It is export oriented.
   - Involves advanced research/modern farming for high quality yields.
   - Located in areas with good and reliable transport network as produce is highly perishable.
   - Most horticulture farms are owned by rich individuals/foreign companies. (3 x 1=3 marks

2. **a) Name two types of fisheries**.

   - Freshwater fisheries/inland fisheries.
   - Marine fisheries/seawater fisheries. (2 x 1= 2marks

   b) Give three factors that favour fishing in Lake Victoria. (3 marks)

   - Shallow water for growth of plankton as fish food attract many species.
   - It has several sheltered beaches which offer good landing sites for fishing boasts.
   - A large market for fish from the large population around the lake who have a traditional fish eating culture.
   - The lake has many fresh water fish species which are preferred by many people e.g. Tilapia.
   - Improved transport network from the lake to market areas help in transportation and marketing of raw fish.
   - Fish processing facilities ensures fish preservation and marketing which encourage fishermen. (3 x 1= 3 marks

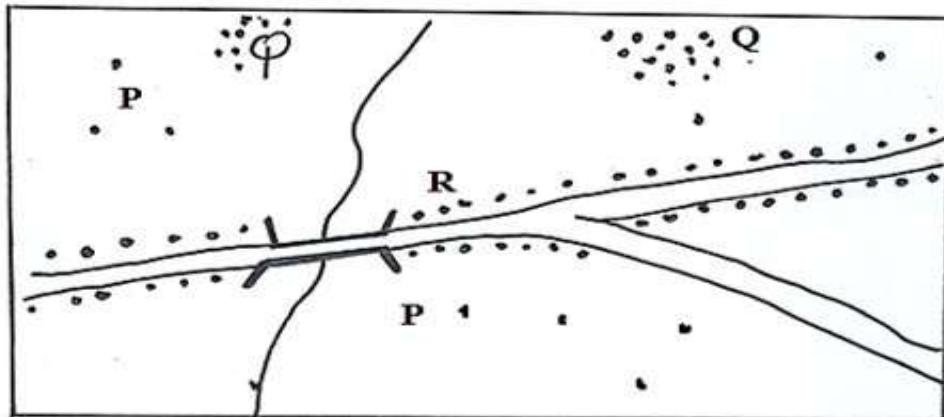3. **a) Differentiate between manufacturing and tertiary industries**. (2 marks)

   - Manufacturing industries change raw materials into semi-processed/finished products while tertiary industries provides services to consumer. (1 x 2= 2 marks (NB: To score must score on both sides)

   b) State three reasons why paper mills are located near rivers. (3marks)

   - The industries need large water volumes for cleaning.
   - The industries need water for cooling machines.
   - The industries dispose waste materials through water.
   - Water provides a cheap means of transport.
   - Some industries are located near large rivers that may provide HEP to run machines.
   - Water is used as a raw material in the industry.

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♦ Some industries use water to debark logs.

4.

a) Identify settlement pattern PQR. (3 marks)

Q-Nucleated **R**- Linear (3 x 1= 3 marks

  ♦ Good transport network.
  ♦ Presence of a river that provide water for domestic use.
  ♦ Coastline/lake shore with sheltered areas for fishing activities.
  ♦ Presence of springs/gently sloping land at the foot of an escarpment/ridge. (3 x1=3 marks)

5. **a) Name three natural hazards associated with climatic conditions.** (3 marks)

  ♦ Floods
  ♦ Lightning and thunderstorms.
  ♦ Windstorms
  ♦ Desertification
  ♦ Landslides.
  ♦ Hailstorms
  ♦ Heat waves. (3 x 1= 3 marks)

b) Give two reasons why garbage dumping as a form of land pollution is common in urban centres. (2 marks)

  ♦ Shortage of bins hence people dispose anywhere.
  ♦ Careless dumping by residents leading to garbage dumps anywhere in town.
  ♦ High turn-over of garbage by the large population and industries.
  ♦ Poorly enforced by laws pertaining to dumping has led to careless disposal of waste.
  ♦ Laxity in collection of waste by council workers leading to garbage heaps.

SECTION B (75 Marks)

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

6. a)(i) Identify the type of photograph. (1 mark)
-Aerial oblique. (1 x 1= 1 mark)
(ii) Identify the type of forest shown on the photograph. (1 mark)
-Coniferous forest (1 x 1= 1 mark)
(iii) State three characteristics of the forest shown on the photograph. (3 marks)

  ♦ Trees are conical shaped.
  ♦ Trees occur in pure stand.
  ♦ Three grow tall and straight. (30-40 m)
  ♦ Trees are needle like leaves.
  ♦ Trees bear cones.
  ♦ Forest are evergreen.

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- There is no undergrowth.
- Trees have thick bark

b) (i) Differentiate between re-afforestation and agro-forestry. (2marks)

Re-afforestation is the planting of trees in areas where they have been cut while agroforestry is the planting trees, crops and rearing of livestock on the same farm. N/B

−To score one must score on both side 1x 2= 2marks)

(ii) Give four reasons why agro-forestry is being encouraged.

- To protect soil erosion.

7. **(a) Define the term mining**. (2 marks)

Mining is the process of extracting valuable minerals both solid and liquid from the earth's crust. 2 x 1= 2 marks

(b) State two ways in which minerals and mineral ores occur.

- Veins and lodes.
- Weathering products.
- Beds and seams.
- Alluvial/placer deposits. (2 x 1=2marks

(c) Identify three methods employed in underground mining. (3marks)

- Solution method.
- Drilling method
- Shaft method
- Drift/adit method 3 x 1= 3 marks

(d) Explain how the following factors influence mining. (6 marks

(i) Mode of occurrence of minerals Minerals that occur at or near the surface can be cheaply mined using Open Cast Mining Method or Alluvial Mining Method while mineral that occur at great depths in the earth's crust are expensive to extract hence deep shaft method can be applied.

(ii) Quality of the ore The higher grade ores that have no impurities are economical to mine as they yield large amount of good quality mineral than low grades ore.

(iii) The size of the mineral deposit. Large mineral resources justify the installation of expensive equipment for exploitation while in small reserves, cheap affordable methods are employed. If the mineral is of high value, high powered machines can be used on small quantity deposit. (2 x 3= 6 marks

(e) You have planned to carry out a field study on an open cast mining site.

(i) State three ways in which you would prepare for the study. (3 marks)

- Carry out reconnaissance survey.
- Prepare a sketch map.
- Formulate objectives/hypothesis for the study.
- relevant stationary.
- Prepare a working schedule.
- Seek permission from relevant authorities.
- Read from reference books. (3 x 1= 3 marks

(ii) Identify three methods of data collection you are likely to use. (3 marks)

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- Taking photographs.
- Direct observation.
- Interviewing the workers.
- Administering questionnaire (3 x 1= 3 marks)

(iii) Describe three negative effects of open cast mining on the environment you are likely to identify.

- Pollution- During the mining process, toxic gases may be emitted from the mines leading to air pollution.
- Dust produced during mining pollutes the atmosphere.
- Derelict land – The land is left with gapping quarries/holes which are ugly and therefore interferes with the natural beauty of the landscape.
- The heaps of waste rock/overburden hinders any other form of land use and creates a landscape that is expensive to rehabilitate.
- Water that collects in hollows left by open cast mine creates ponds which can become habitat for water vectors.
- It destroys natural vegetation which is cleared before extraction of the mineral.
- Mass wasting of environment caused by explosives and heavy machinery during mining. · Soil erosion- clearing of land before extraction of minerals encourages soil erosion.

8. **a)(i) What is nomadic pastoralism?** (2 marks)

Traditional livestock rearing method where large herds are kept on extensive open land and move from place to place in search of pasture and water (1x 2)= 2marks)

(ii) Apart from the Masaai, name two other pastoralists communities in Kenya. (2mks)

-Samburu

-Turkana

-Rendile

-Borana

-Pokot (2 x 1= 2 marks)

b) State four characteristics of normadic pastoralism. (4 marks)

- Cattle are kept as a sign of wealth.
- There is uncontrolled breeding hence large herds are preferred.
- Lack or organized land tenure as land is communally owned resulting in over grazing and problem of soil erosion.
- Disease incidence are very common.
- Practice in areas of low and unreliable rainfall.
- Quantity rather than quality of animals is emphasized.
- Animals are poor and weakened by diseases.
- Marketing systems are inefficient.
- Seasonal movement depending on the climate and the types of animals reared. (4 x 1= 4 marks)

c) **State three physical conditions that favour livestock rearing in Kenya. (**3 marks)

- Vast pasture land for grazing livestock.
- Favourable climate-equatorial / tropical climate, adequate rainfall encouraging growth of pastures and availability of water.

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- Plenty of rock salt as mineral supplements.
- Undulating landscape enable easy grazing. 3 x 1 = 3 marks

d) Explain four ways in which the Kenyan Government has assisted the normadic pastoralists to improve the quality of their livestock. (8 marks)

- Construction of roads/improvement of transport system.
- Improving the market of their products (beef) through Kenya Meat Commission (KMC).

- Establishing of animal research centres to combat animal pest and diseases.
- Provision of water e.g. sinking boreholes and construction of dams
- Control of diseases and pests by veterinary and extension officers.
- Encouraging the normads to form group ranches to improve livestock quality.
- Construction of dips and encouraging farmers to spray their animals.
- Establishing of anti-stock theft unit to check on livestock thef
- Introduction of approved pasture or planting of folder crops.
- Introduction of drought resistance grass.
- Encouraging the farmers to keep a small number of animals to reduce overstocking and over grazing

e) Explain three differences between beef cattle farming in Kenya and Argentina.(6 marks)

Kenya	Argentina
-Beef cattle farming is carried out by both pastoralists and commercial ranches.	-Been cattle farming is mainly carried in extensive ranches.
-Inadequate pasture due to inadequate rainfall and infertile soils.	-There are plenty of pasture resulting from moderate rainfall and fertile soils.
-Livestock farming is affected by pests and diseases.	-Pest and diseases have almost been controlled.
-There are inadequate extension services especially for the pastoralists	Every ranch is a complete unit with all the necessary services for scientific management of ranches.
-Overstocking and overgrazing is a major problem among the pastoralists.	-The stock numbers are well regulated not to exceed the land carrying capacity.
There is limited home market due to low purchasing power.	The large population offer ready market for beef.
-The animals are made to walk long distance to get to the local buying centres due to poor transport network.	-The elaborate transport network helps in transporting of beef cattle to the factory.
-There is inadequate of capital for running the farms.	-Capital is readily available to the farmers.
-The slaughters and the storage facilities are poor.	-The facilities are better organized by use of refrigerated facilities.

9. a) H.E.P projects.
   G - Kariba Dam
   E - Aswan High Dam (2x1= 2 marks)
   b) Factors that influenced the location of Owen falls power project in Uganda.

- A large volume of water from Lake Victoria and R.Nile for a constant water supply to generate energy.
- A hard basement rock to hold the dam/a water reservoir without seepage.
- High rainfall in the surrounding highlands ensures a regular water to generate power.
- The great demand for power for the many industries at Jinja and the neighbouring countries.
- Uganda is landlocked hence the need to generate HEP to reduce the over dependence on expensive imported oil products.
- A deep narrow gorge on R.Nile valley which is suitable for dam construction.(3 x1=3mks

c) Factors that limit the expansion of Geothermal power production in Kenya.

- Limited number of suitable sites in the Rift-Valley to locate power stations.
- Most of the potential sites are found in remote areas hence difficult and expensive to exploit.

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- Inadequate capital for investment in geo-thermal development.
- Shortage of skilled personnel as the country depends of foreign expertise.
- Low level of technology hinders exploitation of geothermal energy.
- Poor government policies with misplaced priority. (4 x 1= 4 marks) d) Ways in which Kenya has benefited from the development of geothermal power.
- It provides an alternative energy source from HEP.
- It has increased Kenyas energy output.
- It has helped stabilize the cost of electricity for consumers.
- Geothermal power generation has created employment opportunities for many Kenyans raising their living standards.
- It has helped open up formerly remote areas in the Rift valley with good transport network and development of social amenities. (4 x 2= 8 marks) e) Advantages of using geothermal power.
- Steam occurs naturally in the rocks.
- A reliable source as it continuously comes out.
- It is non-exhaustible/renewable.
- It has lower operating costs compared to HEP stations.
- It helps reduce over-dependence on fossil fuels or HEP. (2 x 1= 2marks)

f) Ways in which energy crisis affect negatively the economy of Kenya.

- Increase in the prices of crude oil makes Kenya spend a lot of foreign exchange through importation which slows down the rate of economic growth.
- Increase in oil prices leads to increase of prices of farm inputs which leads to reduced agricultural production/food crisis.
- Increase in oil prices increase the prices of commodities leading to inflation/high cost of living.
- The high cost of fuels increase production cost slowing down industrial growth.
- Increase in fuel prices leads to increased transport costs which cause price increase in almost all the sectors of the economy.
- Oil crisis cause scarcity of oil by products leading to shortage of raw materials of certain industries/high prices of by-product.

10. a)(i) Differentiate between land reclamation and land rehabilitation

Land reclamation is the process of converting waste land into more productive state for agricultural/settlement purposes.

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