FORM 4 END OF TERM 2 EXAM

GEOGRAPHY
Paper 2
July 2018

SECTION A

1. **a. Define mining.   (2 marks)**
    - This refers to the process of extracting valuable minerals both liquid and solid from earth crust.
      Double ticks.

    b. Give three ways in which minerals occur.
    - Veins and lodes.
    - Alluvial deposits
    - Weathering products
    - Seams and layers.
    <div align="center">Any first three   (3 × 1 = 3 marks)</div>

2. **a. Distinguish between forest and forestry.**
    Forest is a continuous growth of trees and undergrowth covering a large tract of land while forestry is the science of developing and managing forests including cultivating them.
    (Award double ticks for correct difference with the word ''while'')
    (2 marks)

    b. State three problems facing forestry in Kenya.
    - Fire outbreaks.
    - Encroachment of forest land.
    - Pests and diseases e.g aphids
    - Over exploitation.
    - Poor management.
    - Damage by game.
    <div align="center">(Any first three)</div>

3. **a.   Name two cocoa growing regions in Ghana.**

    - Kumasi
    - Cocoa triangle with regions like Kaforidua North of Accra.
    - Sunyani and Mampong escarpment
    - Akwapim to the East of L. Votha.

    b. State three physical conditions that are necessary for the growing of cocoa in Ghana.
    (3 marks)
    - High temperatures throughout the year.
    - Plenty of sunshine for ripening the pods.
    - High rainfall that is well distributed throughout the year.
    - High relative humidity
    - Gently sloping or undulating lowlands.
    - Deep, well drained soils, loamy, volcanic, light clay soils.
    <div align="center">(Any 3 = 3 marks)</div>

4. **a. Name three rivers in Kenya that cause large scale flooding.**
   (3 marks)
   - R. Nzoia
   - R. Yala
   - R. Tana
   - R. Ewaso Nyiro
   - R. Nyiro
   - R. Kuja

   b. State two problems that affect hydro-electric power production along River Tana.
   - Seasonal fluctuation of rivers.
   - Silting of dams.
   - In adequate capital
   - Fluctuation of water levels.
   2 marks

5. **a. Name two tourist attractions located in the Rift Valley region.** **(2 marks)**
   - Birds like flamingoes.
   - Hot springs and geysers.
   - Pre-historical sites.
   - Wild animals
   - Beautiful sceneries like lakes
   - Volcanic features like crater on Mt. Longonot.

   b. Give three reasons why wildlife conservation is encouraged in Kenya. **(3 marks)**
   - Wildlife earns Kenya foreign exchange.
   - Protection of the endangered species.
   - Source of income for the government.
   - For education and research purposes.

6. **a. Total number of horticultural crops in tonnes produced in the year 2014 is 100, 800**

   Length of rectangle is 15 cm
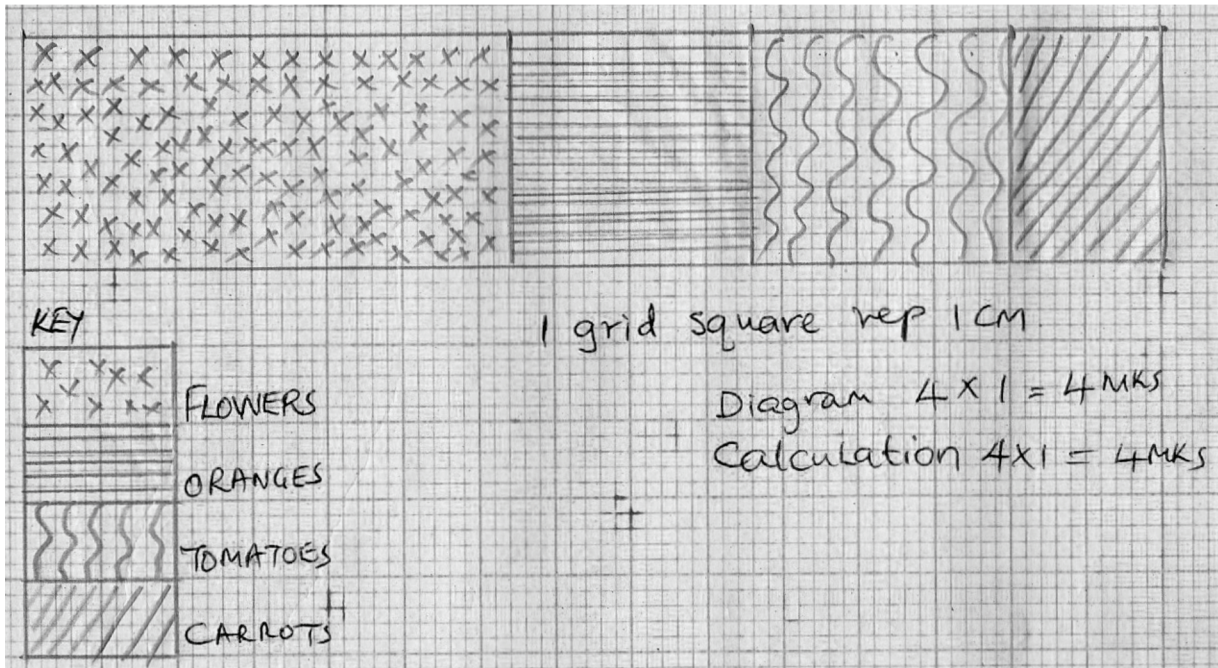   Therefore 15 cm represent 100,800 tonnes of horticultural crops.

   Flowers $\frac{42\ 500}{100,800} \times 15$ = 6.324 = 6.3 cm

   Oranges $\frac{22,\ 600}{100,800} \times 15$ = 3.363 = 3.4 cm

   Tomatoes $\frac{20300}{100,800} \times 15$ = 3.02 = 3.0 cm

   Carrots $\frac{15400}{100,800} \times 15$ = 2.29 = 2.3 cm

A DIVIDED RECTANGLE SHOWING HORTICULTURAL CROPS IN TONNES PRODUCED IN THE YEAR 2014.

(Diagram   4 × 1 = 4 marks)
(Calculation   4 × 1 = 4 marks)

ii. Range of the above data.

42500 - 15400 = 27, 100

(2 marks)

iii. Percentage of the horticultural crop with the highest tonnage.

$\frac{42\ 500}{100,800}$ × 100 = 42.163 %   (2 marks)

b. i. Advantages of using divided rectangles.
- They give clear visual impression of individual components.
- They allow easy comparison.
- Can be used to represent a wide range of data.
- They are easy to draw.
- Easy to read and interpret.

      (Any 3 = 3 marks)

ii. State three disadvantages of using divided rectangle.
- Only one measurement can be used.
- Difficult to read the exact values of individual components.
- Do not show trend.

      (Any 3 = 3 marks)

c. Problems facing horticultural farming in Kenya.
- Most roads are impassable during rainy season causing delays making produce go to waste.
- Stiff competition in the international market leading to low prices that discourage farmers.
- Inadequate refrigeration facilities that lead to deterioration of the quality products.
- Attack of crops by pests and diseases lowering quality and quantity.
- Inadequate capital to purchase all farm inputs, causing low production.
     (Accept 4 well explained problems)
                    (total 4×2 = 8 marks)

7. i.   a.   Name two varieties of coffee grown in western parts of Kenya.   (2 marks)
- Arabica coffee
- Robusta coffee

ii.   Apart from being used as beverage, state two other uses of coffee.   (2 marks)
- Coffee husks are used as fuel.
- Coffee husks are used as manure on the farm.

b. State three physical conditions that favor coffee growing in the central highland of Kenya. (3 marks)
- High rainfall / 1000 - 2000 mm per year.
- Cool to hot temperature / 15° C - 30° C
- High altitude areas / 1000 m to 2300 m above sea level.
- Deep well drained fertile soils.

c. Describe the stages involved in coffee production from picking to marketing.   (8 marks)
- Ripe red berries are picked by hand.
- The berries are transported to the factory.
- in the factory, the outer covering of the berries is removed to extract beans.
- Beans are fermented to remove green skin.
- Curing is done by drying beans for 1 week.
- beans are roasted and ground into powder.
- coffee powder is then packed ready for marketing.

d. Explain the significance of coffee farming in Brazil. (6 marks)
- Coffee is exported to earn Brazil foreign exchange used to develop other sectors of the economy like transport.
- Coffee is raw material to industries which process coffee.
- It provides employment hence people earn income.
- May lead to improvement of infrastructure in the country.

e. Your class intends to conduct a field study on coffee framing.

i. State two preparations your class will make before the field study.   (2 marks)
- Conduct a reconnaissance study.
- Prepare a working schedule.
- Prepare the necessary material.
- Group in to various groups.
- Seek permission from relevant authorities.

ii. Give two problems facing coffee farming the class will find out. (2 marks)
- Pests like leaf rust and diseases like coffee berry diseases which lowers production.
- Fluctuation of market prices due to overproduction .
- Shortage of labor during harvesting.
- Delayed and / or poor payment which lowers farmer's morale.
- occasional droughts which destroys the coffee trees
- Competition from other producers which limits market / competition from other beverages.

8. a. i. Name three agricultural non food processing industries in Kenya (3 marks)
- Tobacco processing.
- Footwear making.
- Sisal processing.
- Pyrethrum processing.

ii. State four ways in which Kenya has benefitted from motor vehicle assembling industry. (4 marks)
- Kenya saves foreign exchange.
- Kenya earns foreign exchange through motor vehicle exports.
- The industry has created employment opportunities for Kenyans.
- The industry has promoted the transport sector by availing vehicles.

b. Explain three problems arising from industrialization in Kenya. (6 marks)
- Industrialization has led to rural urban migration which has increased the urban population leading to congestion.
- Some industries emit toxic gases that are harmful to human beings.
- Industrial effluents pollutes water sources making water unfit for human and animal use.
- Fumes from chemical industries corrode metallic roofs.
- Some industries have led to the displacement of people thus disrupting their social and economic life.

c. Explain three factors which influenced the location of the iron and steel industry in Ruhr region of Germany in the 19th Century.
- Availability of coal—iron ore as well as limestone from the Rhine valley provided raw materials.
- River Rhine / Ruhr provided water required for cooling machines in the industry.
- The region is served by navigable rivers which helped in cheap transport for bulky raw materials and finished products.
- Presence of rich companies provided capital for industrial development.
- The dense and affluent population in (central and western) Europe provides ready market for iron and steel.

d. You intend to carry out a field study of a furniture making industry in a local market center.
i. State two reasons why it is necessary for you to visit the area of study in advance. (2 marks)
- To prepare a route map.
- To determine the suitability of the area of study.
- Preparation of a working schedule
- To be able to prepare appropriate data collection methods.
- To be able to formulate appropriate objectives for the study.
- To seek permission for the visit.

ii. You are required to prepare a working schedule for your study, state two items you would include in the schedule.
- Time for departure.
- Time to spend in the study
- Time for lunch
- Time to end the study.

iii. Give two advantages of studying about furniture using fieldwork.   (2 marks)
- Enables one to get first hand information.
- It makes learning real.
- It enables one to share information.
- it enables one to retain information learnt.

9. a. Define the term fishing.
- Fishing is the exploitation of water resources such as fish, seals, whales, crabs, lobsters, prawns and oysters.
Fishing is the catching of fish and other aquatic animals.

b.   Explain two ways in which each of the following factors negatively affects fishing.
i. Agricultural activities   (4 marks)
- Siltation as a result of soil erosion from nearby ploughed land reduces the depth of fisheries hence affecting the breeding places of fish.
- **Th**e release of agro chemicals in to the fisheries can lead to death of fish.

ii. Water weeds.   (4 marks)
- The water weeds compete with fish for oxygen and hence reduce the quantity. The water weeds interfere with the navigation of fishing vessels and tears off fishing nets.

c. Use the map of North west Africa ground to answer question c (ii) and (iii)

i.   Give three types of fish species caught in the North West Atlantic fishing ground. (3 marks)
- Haddock, cod, Herring , Mackerel , menhaden, Hake, flounder

ii. Name the ocean currents marked M and N.   (2 marks)
   M **-** Cold Labrador currents.
   N - Warm Gulf Stream current

iii. Explain two ways in which the convergence of the ocean currents marked M and N
**   (4 marks)**

     Influence fishing.
-The convergence of the cold and warm currents modifies the temperature of the water making the area ideal for fishing throughout the year. The convergence of cold and warm ocean currents causes upwelling of ocean water which brings minerals for the plankton to the surface, attracting a large number of fish to the waters.

d.   Give three differences between fishing in Kenya and Japan.   (6 marks)

- **J**apan has an indented coastline with many natural harbours, bays and inlets while the Kenya coastline is fairly straight with few indentations and hence not ideal for fishing.
- Japan has extensive continental shelf, shallow waters and presence of cold and warm currents hence rich in planktons while Kenya has a narrow continental shelf and the offshore areas of the Indian Ocean are too deep for the growth of planktons.

- In Japan there is large market within the country and from abroad while in Kenya there is small market from within the country and from abroad.
- In Japan both marine and inland fishing are well developed while in Kenya marine fishing is not yet developed and contributes only about 10% of the total catch.
- In Japan inland fishing is seasonal while in Kenya inland fishing is full time in some areas.
- In Japan fishing vessels are owned by large cooperatives while in Kenya mostly fishing vessels are owned by individuals.
- In Japan fishing people use large ships, so strong sea tides are not a problem while in Kenya fishing people are faced with a problem of strong sea tides because of using small boats.
- In Japan there is extensive fishing waters while Kenya has limited fishing waters.
- Japan has more than 3000 islands of fishing villages while Kenya has about 300 fishing villages.
- Japan use well developed and advanced fishing methods and vessels e.g. ships while Kenya use of traditional fishing methods and vessels e.g. canoes
- Japan has cool climatic factors hence preservation is efficient while Kenya has hot climatic conditions
   thus preservation is poor.

10. a. Describe the characteristics of the population represented by the pyramid.   (8 marks)
   - From 0 - 14 years the population density is low.
   - From 15 - 44 years, the population density is high.
   - The ageing population is small.
   - The productive group of the population is large.
   - The production has a high life expectancy.
   - The dependency ratio is low.
   -The population has a high birth rate
   - The population has a low death rate.
   - The population of males and females are almost equal at all levels.

**b. Apart from migration, explain four factors that influence population growth and structure.
                         (8 marks)**

   - Fertility - It is the total number of births that a woman would have 15 and 49 years . If the fertility rate is high, the more the number of children and vice versa.
   - Mortality -   Refers to number of deaths among members in a given population. High mortality rate reduces or stagnates the population growth.
   - Cultural beliefs - Like sex preferences make a couple who have given birth to girls to continue getting more children while looking for a baby boy.
   - Early marriage - A girl marrying at an early age is likely to give birth to more children in her lifetime than one who gets married at a later age.
   - Health services -   Establishment of better medical facilities and improvement in hygiene have reduced the mortality rate resulting to population growth.
   - Availability of food - Availability of enough food make people healthy, hence prolonging their life
   - Modernization - Provision of better social amenities such as school and clean water have improved people's living standards, which account for decline in the death rate.

c. State two positive effects of population growth and structure.   (2 marks)

   - A large population provides a large manpower resource.
   - increased demand for consumer goods and services which, stimulates agricultural, industrial development and exploitation of natural resources.
   - Pressing needs associated with a high population lead to technological innovation.

d. i. Give five problems that could arise from overpopulation.   **(5 marks)**

- Under development
- Unemployment
- Poor housing and health facilities.
- Over utilization of agricultural and natural resources.
- Slow industrial growth.
- Reduction in cash crops
- Gross domestic product i.e. the per capital income per person becomes low.

ii. Name two sources of population data.   **(2 marks)**
- Census reports
- text books
- magazines
- periodicals
- Statistical abstracts.