

2020 FORM 4 TERM 1 ENTRY EXAMS

Geography Form 4 PP 2 marking scheme

1.

(a) Distinguish between forest and forestry.

Forest is a continuous and extensive land covered with a closed stand of tall trees usually of commercial value, while forestry is the science of developing or cultivating forests. (2 mks) (2x1)

(b) State three factors favouring growth of Mt. Kenya forest. (3 mks)

(i) The area receives high rainfall throughout the year which encourages continuous growth of trees.

(ii) The area has deep fertile volcanic soil that allow the roots to penetrate deep hence able to hold trees. prohibiting cultivation and settlement hence allowing growth

(iii)The area is a gazette reserve trees.

(iv)The steep slopes discourage settlement thus forests thrive.

2. (a) Name three middle east countries that are oil producers. (3 mks)

Iraq

Saudi Arabia

Iran

Kuwait

United Arab Emirates

(b) Give three by products obtained when crude oil is refined. (3 mks)

Wax Bitumen/peat/asphalt Grease/lubricants Resin/petrol chemicals

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

Uasin Gishu, Narok, Nyandarua, Meru and Nakuru

(b) Give three physical conditions that favor large scale wheat farming in Prairies provinces of Canada (3mks)

-Extensive land

-Fertile Prairies soils

-Undulating landscape

-Warm summer/ frost free

-Moderate rainfall

4. (a). Define the term nomadic pastoralism. (2 mks)

It is the seasonal movement of herders and their livestock from one place to another in search of water and pasture.

(b). Give **three** breeds of beef cattle reared in Kenya. (3 mks)

- Galloway
- Boran
- Short horn zebu
- Charolais
- Angus

5. (a) A photograph is divided into 3 parts. Name them. (3 mks)

Foreground

Middle ground

Background

(b) State two limitations of using photographs. (3 mks)

-Expensive it requires a camera or a photographic device/must travel to where the feature is.

-May not be useful to visually impaired persons

-Blurred images may not be clear hence can lead to wrong interpretation

-Black and white photograph of some features may give wrong impression of a different feature eg wheat and oats/grass

-Requires a skilled person who knows how to capture photographs using devices such as video cameras

6. (a). Differentiate between secondary and primary data. (2 marks)

Primary data are facts and figures collected from the field as first hand/ original information while secondary data is information that is available in stored sources such as Text books, magazines etc.

(b). Use the table below to answer the questions that follow.

Number of dairy animals in division X on the Kenyan highlands in 1992.

TYPE	NUMBER	
Guernsey	8400	$8400/48000 \times 12 = 2.1$ ($8400/4000 = 2.1$)
Ayrshire	7200	$7200/48000 \times 12 = 1.8$ ($7200/4000 = 1.8$)
Jersey	10800	$10800/48000 \times 12 = 2.7$ ($10800/4000 = 2.7$)
Friesian	16400	$16400/48000 \times 12 = 4.1$ ($16400/4000 = 4.1$)

Shahiwal	5200	$5200/48000 \times 12 = 1.3$ ($5200/4000 = 1.3$)
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(i). Using a scale of 1cm to represent 4000 animals, represent the above data using a divided rectangle. (6mks)

A divided rectangle showing the number of dairy animals in division x on the Kenyan highlands in 1992

friesian	jersey	Guernse	ayrshir	Sahi
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Calculations 2 ½ mks
 Rectangle 2 ½ mks
 Title 1 mk
 Total 6mks

(ii). State **two** advantages of using a divided rectangle to represent data. (2mks)

- Each individual component is clearly seen
- It allows for comparison of quantities of the various components
- It can be used to represent a wide range of data

(iii). Name **three** other ways through which the data above can be statistically presented. (3 mks)

- Pie charts/ proportional circles
- Bar graphs
- Simple line graphs

(c). State **three** physical factors that favour dairy farming in the Kenya highlands (3mks)

- sufficient and reliable rainfall ensures continuous growth of fodder and constant supply of water for animals
- availability of well drained fertile soils ensure growth of good quality feeds
- Low temperatures of between 16°C-20°C are conducive for the survival of the exotic breed
- humid conditions favor breed of dairy animal.

(d) (i) Explain **three** ways in which dairy farming in Kenya is different from dairy farming in Denmark. (6mks)

- in Kenya cattle mainly depend on naturally growing grass while in Denmark the cattle is feed on fodder and commercial feeds
- in Kenya mechanization is limited while in Denmark mechanization is widely used
- in Kenya most farmers practice mixed farming while in Denmark dairy farming is highly specialized
- in Kenya most of the dairy products are consumed by the domestic market while in Denmark the products are mainly exported

In Kenya dairy production is affected by variation in climate while in Denmark dairy farming is least affected by variation in climate

-in Kenya animals graze outdoors throughout the year while in Denmark animals are kept indoors during the winter

-in Kenya dairy co-operative movement is less developed while in Denmark cooperative movement is highly developed.

In Kenya artificial insemination/ extension services is limited to a few firms while in Denmark artificial insemination/ extension are widely used

In Kenya research is limited while in Denmark research is extensive

-in Kenya dairy farming is mainly practiced in the highlands while in Denmark it is found throughout the country

(ii). State **three** by-products of milk. (3 mks)

- ghee
- cheese
- butter

7.(a) (i) Name two indigenous softwood trees in Kenya. (2 mks)

Cedar

Podo

African pencil 2x1-2 mks

(ii) State five factors that favour the development of softwoods in Kenya. (5 mks).

Cool climate that enables coniferous trees to grow/flourish.

Highlands receive high amounts of rainfall.

Rugged highlands discourage settlement and agricultural activities leaving forestry as the alternative.

High demand for the soft woods products encourage tree planting

Deep soils favour forest growth.

Softwoods grow quite first due to warm temperatures. 5x1 5 mks

(b) (i) Explain four problems experienced in commercial exploitation of tropical rain forests in Africa. (8 mks)

-Wide variety of trees species hence exploitation of the required species difficult.

-Valuable tree widely scattered hence difficult and expensive to exploit.

-Thick/dense undergrowth hinder accessibility/exploitation.

-Dangerous wild animals/insecurity

-Humid climate-malaria conditions.

-Heavy rainfall all year round impassable roads.

-Low demand-markets are far away.

-Bulkiness of logs- transportation is difficult. 2x4 8mks

(ii) Give four protective roles of forests in a country .

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- Protect water resources/catchment areas.
- Protect and improve climate by preventing excessive evaporation from bare ground.
- Control/reduce soil erosion by breaking force of falling raindrops/bind soil particles
- Act as wind breakers.
- Provide humus to soil which absorb most of the moisture 4X1 4 mks
- (c) Explain three problems Canada experiences in exploiting her forests.
- Cold climate means trees take long period to mature hence delaying harvesting.
- Accidents/fire destroys large tracts of forests reducing area of forests
- Rugged landscape hinder smooth exploitation of forests.
- Northern part experiences very cold conditions making the area inaccessible. (6 mks) 3x2 6 mks

8. 8. (a) (i) Name **two** major counties in Kenya known for high maize production. (2 mks)

- Trans Nzoia
- Uasin Gishu

(ii) What is the importance of maize production to Kenya's economy. (6 mks)

- Maize production is consumed as food when processed it produces flour which makes posho
- maize is valuable as animal feeds
- Maize is used to make industrial products such as salad oil for cooking and alcohol for consumption
- maize has led to development of livestock industries by providing feeds for animals

(iii) Name the Board that is known for buying and selling of maize in Kenya. (1 mks)

- National Cereals and produce board

(b) What are the problems facing the maize farming in Kenya. (8 mks)

- Maize is attacked by pests eg stalkborer, armyworms, ampides etc
- maize is affected by deceases eg white leaf blight
- Price fluctuations especially low prices discourage farmers. This is due to importation of cheap maize that flood the market killing the morale of farmers.
- Inadequate capital by farmers to buy farm inputs eg fertilizers and high quality seeds
- Unfavorable climatic conditions eg draught or frost.
- Poor transport and communication eg poor roads

(c) Explain **four** physical conditions that favour maize growing in Kenya. (8 mks)

- Temperature- maize requires moderate to high temperature ranging between 18°C- 30°C and should not fall below 10°C, different varieties of maize thrive at different temperatures but within the range of 18°C- 30°C/ moderate to high
- Rainfall- rainfall requirement depend on different varieties of maize crop. It varies from moderate to high rainfall that is from 300mm- 1800mm. there should be a dry period for the crop to ripen.
- Soils- Maize does well in a wide range of soils. The soil should be deep rich with abundant amount of Nitrogen content, it should be well drained and not water logged. It should be aerated.

- Altitude- different types of maize are suitable for different altitudes, however the best ideal condition is around 1800m above sea level
- Topography- Maize grows very well on gently sloping or undulating plains and plateaus

9.a) Define the term mineral (2mks)

-A mineral is a naturally crystalline inorganic substance with a definite chemical composition and physical properties (2mks)

b) i) Name two areas in South Africa where diamond is mined (2mks)

Kimberly

-Orange free state

pretoria

ii) Give four ways in which minerals occur (4mks)

-veins and lodes

-beds and seams

-weathering products

- Alluvial deposits

c) i) Explain Three negative effects of mining on the environment (6mks)

-Waste of agricultural land

- mines and their associated tip

-heaps may occupy land otherwise suitable for farming

-Waste of industrial land

-where derelict land is in or near towns it may occupy industrial land which could be used for industries

-Open cast mines may be filled with water and create deep pools thus accidents are likely to occur. Such pools are also breeding grounds for mosquitoes and other water borne diseases

-Pollution- during mining toxic gases may be emitted from the mines leading to air pollution

ii) Identify any two methods of mining (2mks)

-Open cast mining -Underground mining -Alluvial mining/ placer method

iii) Name a port through which minerals in East Africa are exported (1mk)

Mombasa, Dar-es-salam

d Explain four ways in which soda ash contributes to the economy of Kenya) (8mks)

-it has led to the growth of magadi township -it has led to the development of social amenities such as hospitals, schools, social clubs, electricity that have benefited the local maasai community it has stimulated the

development of infrastructure. For example the F10km tarmac road and railway line from konza to magadi in an otherwise remote region -The company provides employment to many Kenyans improving their living standards -Through exports of soda ash the country earns a substantial amount of foreign exchange. (2x4) 8mks

10. (a) (i) Differentiate between market gardening and floriculture. (2mks)

Market gardening is the intensive cultivation of vegetables and fruits for sale in the nearest urban center while floriculture is the cultivation of flowers for sale

(ii) State **four** features of horticulture. (4mks)

- Small firms
- Located near communication lines.
- Land is intensively farmed
- continuous application of manure and fertilizers
- Located near urban centers
- Are scientifically managed

(b). (i) State **three** physical factors that favour development of horticulture in Kenya. (3mks)

- Abundant supply of water from lakes and rivers
- Gentle slopes to facilitate construction of green houses
- Warm temperatures that favor growing of horticulture products
- Well drained soils
- Volcanic soils/ deep soils

(ii) Explain why horticulture is more developed in Netherlands than in Kenya. (8mks)

	Netherlands	Kenya
1	Has higher demands for horticultural products	Has low demand for horticulture products
2	Farmers have access to capital needed for horticulture farming	Farmers have low capital for horticulture farming
3	Very high technology	Poor technology
4	Well developed transport network	Underdeveloped transport network
5	Has highly skilled labor	Inadequate skilled labor in production
6	There is more research into suitable methods for horticulture farming	Inadequate research
7	Has well organized marketing systems/ cooperatives which are favorable for horticulture farming	Has underdeveloped marketing systems/ cooperatives which are not favorable for horticulture farming

(4x2=8)

(c) State and explain **four** contributions of horticulture to the economy of Kenya. (8mks)

- Earns foreign exchange from exports
- Creation of employment
- Raw materials for industries eg processing of fruits
- Enhances development of roads
- Source of food to the population

- Provision of social amenities in the growing areas
- Source of income to the farmers when sold
- encourages land reclamation

(4x2=8)