

FORM 3 EXAMINATION, 2022

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

312/ 2

GEOGRAPHY

Paper 2

1. a). Factors that influence the occurrence of minerals

- Vulcanicity
 - Weathering
 - Evaporation
 - Erosion
 - Sedimentation
 - Metamorphism
- (3x1= 3marks)*
- b). (i) Kariadusi - Diatomite *(1x1= 1mark)*
(ii) Totoro - Limestone or Phosphate *(1x1= 1mark)*

2. a). Social factors influencing agricultural activities in Africa

- Traditional and culture
- Ownership and inheritance of land
- Religion *(2x1= 2marks)*

b). Features of plantation agriculture

- Crops are usually raised on large estates of more than 40hectares/100acres
- Most large estates are owned by foreign companies
- Establishment and maintenance of the estates requires large sums of money.*(3x1= 3marks)*

3. a). Hardwood species found in Kenya

- Meru oak
- Elgon olive
- Elgon teak
- Cedar
- Mvuli
- Mangrove *(2x1= 2marks)*

b). Problems facing forestry in Kenya

- Occurrence of forest fires
- Pests such as aphids and diseases that destroy trees
- Overgrazing
- Debarking of trees
- Over exploitation
- Conflicts in land use
- Excision *(3x1= 3marks)*

4. a). Conditions necessary for growth of tea

- Cool to warm temperatures averaging 21⁰C during growing season
- Altitude raging from 1000m to 1700m above sea level
- Deep well drained and slightly acidic soils

- Areas shielded from strong sunlight and violent winds
 - Cheap labour during preparation, weeding, pruning and picking *(3x1= 3marks)*
- b). - Nyambene hills in Nyambene
- Nyeri - Thika
- Murang'a - Maragua
- Kiambu *(2x1= 2marks)*

5. a). Uses of maize in Kenya

- It is a staple food for Kenyans
- Stalks, leaves and other remains from the maize cobs are used to feed domestic animals
- Stalks and cobs are used to provide domestic fuel
- Grains are used in manufacturing of corn oil and animal feeds *(2x1= 2marks)*

b). Problems facing maize farmers in Kenya

- High cost of farm inputs e.g. fertilizers
- Unstable/fluctuating prices
- Prolonged drought or unfavourable weather conditions
- Flooding of the market by cheap imports from COMESA countries
- Pests e.g. weevils and diseases i.e. Maize stalkborer
- Monoculture leading to soil exhaustion
- Poor marketing strategies *(3x1= 3marks)*

6. Short-horned Zebu

Total is 450
 $\sqrt{450} \approx 21.2$

Boran

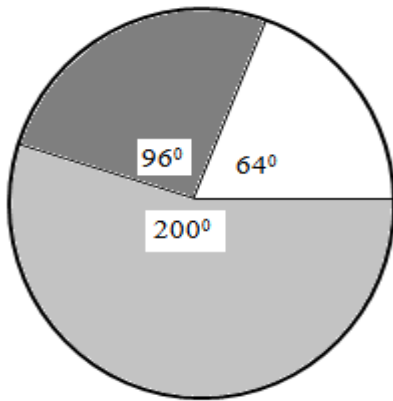
Total is 900
 $\sqrt{900} \approx 30$

Scale: 1cm represents 6units

Radii for short-horned
 $\frac{21.2}{6} = 3.5\text{cm}$

Radii for boran
 $\frac{30}{6} = 5\text{cm}$

Short-horned Zebu

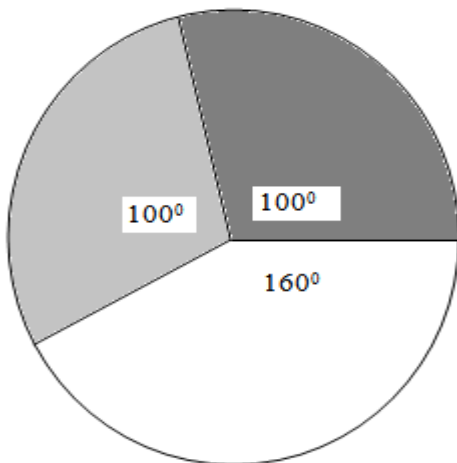


Calves $\frac{80}{450} \times 360^\circ = 64^\circ$

Cows $\frac{250}{450} \times 360^\circ = 200^\circ$

Nature bulls $\frac{120}{450} \times 360^\circ = 96^\circ$

Boran



Calves $\frac{250}{900} \times 360^\circ = 100^\circ$

Cows $\frac{400}{900} \times 360^\circ = 160^\circ$

Nature bulls $\frac{250}{900} \times 360^\circ = 100^\circ$

(ii). Three objectives the class formulated before going to the field

- To find out the total number of beef cattle kept in the Konza ranch.
- To find out the type of pasture used to feed the cattle.

- To find out which breed is dominant at the Konza ranch. *(1x 3= 3marks)*

(iii). Questionnaire

- Where do you sell your beef cattle?
- How many times per year do you market your beef cattle?

- What is the size of Konza ranch?
- After the cows deliver do you milk them?
- Any other relevant question

(1x4= 4marks)

b (i). Four problems facing beef farmers in Kenya

- Prolonged drought – Leads to insufficient pastures
 - Pest such as ticks – Leads to death/ weak animals.
 - Marketing problem – leads to low prices for the beef.
 - Poor pastures – Leads to emaciated /weak animals.
 - Poor infrastructure – Animals loss weight when being taken to the market.
 - Competition from other types of meat – Hence low prices/ farmers loose moral.
- (Explain each) (2x4= 8marks)

(ii). - Aberdare Angus

- Hereford
- Galloway
- Short-horned (1x2= 2marks)

7. a). Four conditions that are necessary for the growing of oil palm

- High rainfall which is well distributed throughout the year.
- High temperatures throughout the year.
- Fertile soil which are well drained
- Trees should be planted around the plots to protect the crop from strong wind.
- Enough capital to pay workers and maintain feeder roads and vehicles(1x4= 4marks)

(ii). Stages involved in harvesting oil palm:-

- Oil palm fruits are harvested 3 years after planting
- Ripe fruits are cut using curved knives
- Fruits should be harvested every 5-10days.
- After harvesting the fruits must be quickly transferred to the processing factory.

Stages involved in processing:-

- At the factory, fruits are weighed.
- Fruits are put into tube-like cages or trucks.
- The tube-like cages or trucks passed through hot steam to sterilize the fruits.
- Fruits are taken to stripping machine to remove their stalks and separated from any other unwanted materials.
- Fruits put in digesters for further cooking to soften them into pulp.
- Pulp is separated from the kernel
- The pulp is pressed to extract the oil.
- Kernel is ground to remove the shells and extract oil. (1x7= 7marks)

(iii). Use of oil palm tree

- Leaves used for thatching houses
- Leaf-ribs provide building materials

- Old trees-trucks sap is tapped to make beer
- Shell and rib are used as fuel
- Leaves are used in making brooms, hats and mats.

b). Four ways in which oil palm contribute to Nigerian Economy:-

- Create employment – Farmers improve their living standards.
 - Earns foreign exchange – Used to develop other sectors of the economy.
 - Raw materials to related industries – leads to industrial development.
 - Enhance development of infrastructure
 - Provide cheap building materials
- (Explain any 4) (4x2= 8marks)

Two problems oil palm farmers in Nigeria

experience:-

- Prolonged drought
- Concentration by farmers on food crops than oil palm
- Diseases such as anthrax nose and blast
- Poor management of producer boards and co-operative societies. (2x1= 2marks)

8. a). Market gardening

- Cultivation of fruits and vegetables near a market centre to feed the local market. (2marks)

b). Four characteristics of markets gardening:-

- Farm generally small in size due to limitation land
- Land intensively farmed to maximize production
- Advanced scientific techniques of crop production
- Labour intensive
- Continuous application of manure and fertilizer
- Feed the local market (3x1=3marks)

c) (i). Four reasons why horticultural is more developed in Netherlands than in Kenya.

- High local demand for horticultural products in Netherlands than in Kenya.
- Netherland has a long experience in horticulture than in Kenya.
- Markets strategy in Netherlands is more organized than in Kenya.
- Netherlands has better and improved infrastructure than Kenya.
- Netherland is centrally located within a rich region to market horticultures than in Kenya. (4x1= 4marks)

(ii). Four ways in which Kenya has benefited from horticultural:-

- Provide food to many people
- Creates employment hence people improve their living standards.

- Raw materials for related industries hence establishment of many industries.
- Earn foreign exchange which is used to develop other sectors.
- Enhance development of infrastructure
(Any four explained) (4x2= 8marks)

d). Four problems experienced by horticultural farmers in Kenya.

- Prolonged drought which lowers yields
- Poor marketing strategies hence low prices
- Limited local markets hence most produce goes to waste.
- Inadequate capital to buy the farm inputs, and pay the works

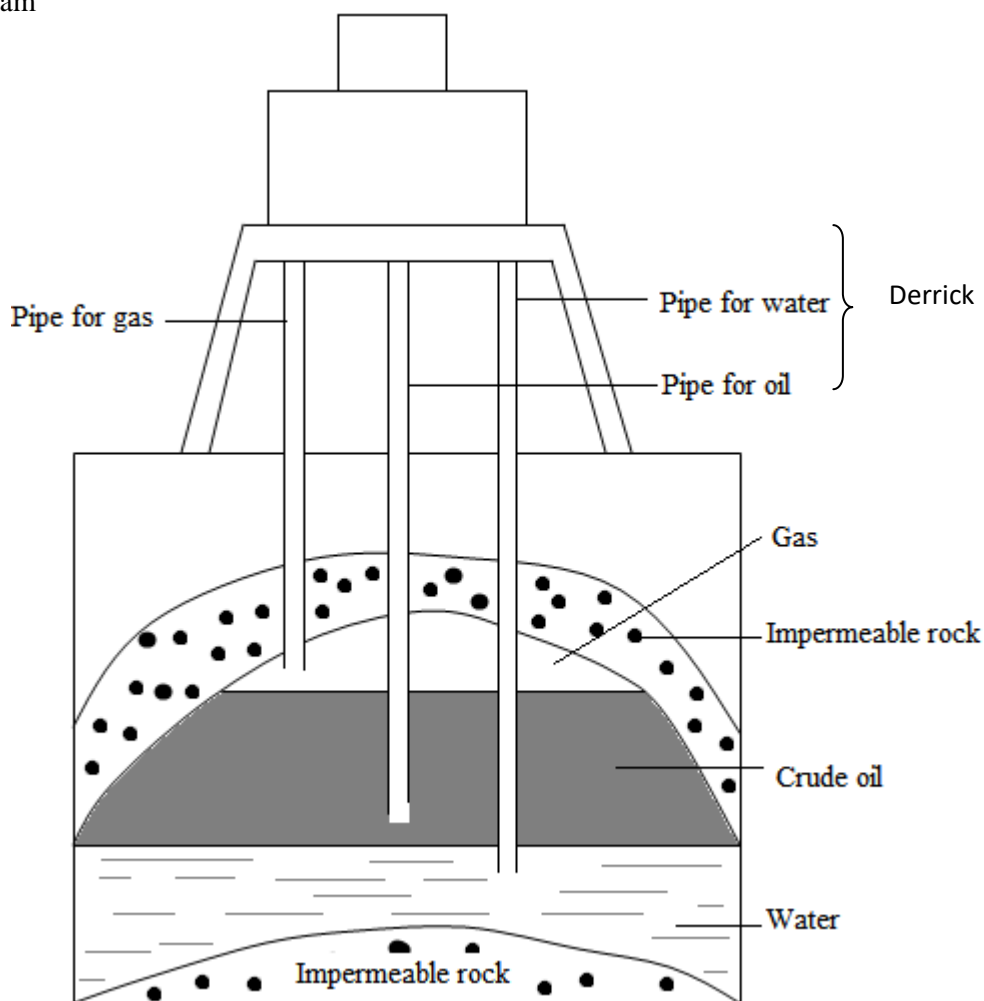
b). Diagram

- Poor infrastructure
- Pests e.g. aphids and diseases e.g. Bacterial wilt.

(4x2= 8marks)

9. a).
- Iran
 - Iraq
 - Saudi Arabia
 - Kuwait
 - Yeman
 - U.A.E.
 - Qatar
 - Bahran
 - Oman

(4x1= 4marks)



(5x1= 5marks)

- c) (i).
- Bitumen
 - Wax
 - Sulphur
 - Lubricants
 - Petrochemicals

(3x1=3marks)

(ii). Explain four benefits Kenya is likely to get from oil.

- Creation of employment. The unemployment rate in Kenya will drop.
- Cheap oil products. This will lead to low prices of some commodities.
- Enhanced develop infrastructure

- Earn foreign exchange. This will lead to the development of the economy.
- Raw materials to industries. this leads to development of other industries.

Explain

(4x2= 8marks)

d). **Five problems Kenya is likely to experience in mining**

- Shortage of capital
- Limited skills and technology
- May cause civil conflict if not well managed.
- Companies involved in exploitation of oil are foreign owned leading to repatriation of profits
- Air pollution

(5x1= 5marks)

10. a (i). Agroforestry is a system of agriculture which involves intercropping of trees and crops. (1mark)

(ii). **Four reasons why agroforestry is encouraged in Kenya:-**

- Supply of fuel to the farmer
- Supply timber to the farmer
- Create employment opportunity
- Protect soil from erosion
- Raise water table
- Create scenic beauty
- Conserve environment

(Any four well explained)

(4x2= 8marks)

b). **two examples of softwood trees found in Kenya**

- Cypress
- Pine
- Podo
- Kenya Cedar (Juniper)
- Bamboo

(2x1= 2marks)

e). Four characteristics of softwood forests in Canada

- Conical in shape
- Pure stand
- Needle-like leaves
- Flexible branches
- Evergreen
- Shallow rooted

(4x2= 8marks)

d). Three problems that affect forestry in Canada

- Severe winter
- Rugged landscape
- Wild fire
- Pests and diseases such as a aphid
- Over exploitation

(Any four well explained)

(3x2)m =m6