

312/2

GEOGRAPHY

Paper 2

MARCH/APRIL - 2020

MARKING SCHEME

ARISE AND SHINE TRIAL 1 EXAM

MARCH/APRIL-2020

1. (a) **Two types of human settlements** (2marks)
- Rural settlements
 - Urban settlements
- (b) Settlement patterns marked
- Q - Nucleated /clusters
 - R - Linear (2marks)
2. (a) **Characteristics of Jua Kali industries in Kenya**
- Are operated by individuals or small groups
 - Are pursued as part time or full-time occupation
 - They require low capital investment
 - They use simple equipment / tools
 - They use local /recycled raw materials
 - They use basic /simple skills in craft
 - They are mostly operated in the open /sheds
 - They are widespread (Any 3 x 1 =3)
- (b) **Problems facing Jua Kali industries in Kenya**
- Difficulty in getting raw materials
 - Inadequate capital for expansion
 - Competition from other well-established industries/ competition from imported products
 - Inadequate marketing skills / strategies
 - Inadequate security (any 3 x 1 = 3)
3. (a) **Which province had the highest change in population between years 2000 and 2005?**
- Rift Valley All the calculation 2 marks answer 1mark
- (b) **Calculate the percentage increase in population in Kenya between years 2000 and 2005**
- 10.795% (2marks)
4. (a) **Problems of low tourist season in Kenya**

- ✓ Reduce revenue due to loss /reduced foreign exchange
- ✓ Reduced employment to people (such as tour guides, drivers) hence lowering their living standards
- ✓ It may lead to reduced income) to people who sell artifacts to tourists in the parks and also reduced income to service providers such as hotels and resort owners).

(b) **Inland tourist attraction in Kenya**

- ✓ Contrasting landscapes / beautiful sceneries such as volcanic features, the snowcapped Mount Kenya, the Great Rift Valley, the plateau, plains and lakes.
- ✓ Many national parks / game reserves with variety of animals and plants
- ✓ Historical sites / archeological sites e.g. Kariandusi prehistoric site.
- ✓ The diverse culture of many different communities e.g. the Maasai.

5. (a) **Distinguish between land reclamation and land rehabilitation** (2marks)

- Land reclamation is the process of converting formerly marginal/waste/unproductive land into productive land (for growing crops and keeping livestock) while land rehabilitation is the process of restoring land to its former productive state.

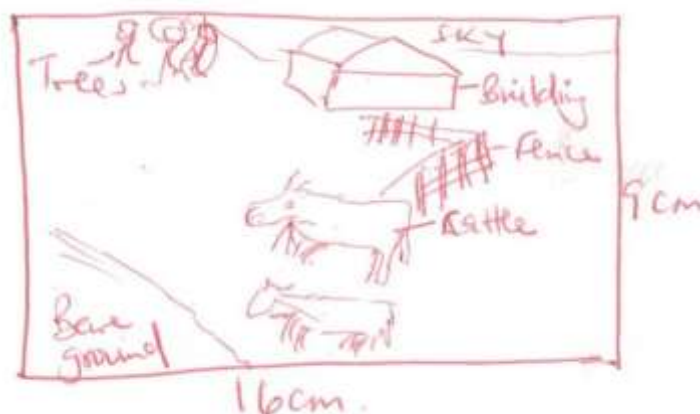
(b) **State three significances of irrigation farming in Kenya** (3marks)

- Irrigation farming earns farmers income when they sell produce
- It creates employment to people
- Irrigation schemes creates settlements for many people
- Leads to reclamation of unproductive land
- It earns foreign exchange when crops are exported e.g. horticultural crops
- Leads to development of social amenities
- Leads to food production in the country
- Leads to industrialization / crops are raw materials to industries

6. i) Ground photograph (1mark)

ii) Dairy farming (2marks)

iii)



- Rectangle (1mark)
- features (3marks)
- key (1mark)

(b) i)

- Zero grazing takes very minimal space
- Zero grazing minimizes the spread of diseases
- It ensures maximum utilization of land
- It improves the quality of the animal under zero grazing
- High population density reduces space for free range /shortage of land
- Availability of market in the leading urban centers
- Competition for land with other land users
- Efficient means of transport to reach the market

ii) – They have similar dairy animals e.g. Ayrshire, jersey, fresian etc.

- similar ways of processing dairy products
- both Kenya and Denmark dairy products serves both local and export market
- the two countries have mixture of traditional breeds and exotic breeds
- Dairy products are sold through co-operatives.

iii) - Embezzlement of funds by dairy co-operatives resulting to low payments to farmers

- Diseases such as foot and mouth disease, rinderpest, tsetsefly reduces quality / increases cost of production
- High cost of farm input and timing of veterinary services discourages farmers.
- Inadequate cooling plants at the collection centres sometimes resulting in milk going bad before being processed.
- Impassible roads during rainy seasons delay delivery.
- Long dry season / drought leads to inadequate pasture which lead to low milk productivity.

c) – Education given to farmers during Asla/ field days/ dairy farm management.

- Research / the government has invested a lot in research to help alleviate some of the problems

- Provision of extension services to the farmers.
- Provision of demonstration projects such as Emali livestock multiplicity projects.
- Liberation of dairy farming and settling up of dairy companies e.g. Brookside.

7. a) i) **Name three types of minerals** (3marks)

- ✓ metallic minerals
- ✓ non- metallic minerals
- ✓ fossil fuels/energy minerals

ii) **Briefly explain any three factors influencing the occurrence of minerals.** (6marks)

i) **Vulcanicity :**

- When molten magma finds its way into the rock cracks it solidifies there with the minerals it carries.
- hot and geysers also brings minerals to the surfaces

ii) **Metamorphism :**

- High pressure and heat cause recrystallization, changing their natures and become new valuable minerals.
- When magma intrudes into country rock, recrystallizes them forming new minerals.

iii) **Sedimentation:**

- During formation of sedimentary rocks minerals are deposited in a place, over time accumulate compact and form a bed /seam of minerals.

iv) **Evaporation:**

- High temperature causes high evaporation of water in lakes, seas, leading to recrystallization of salts which are then deposited on lake/sea bed.
- Hot springs and geysers deposit mineral salts on surface.

v) **Weathering :**

- ✓ Rocks are deeply weathered chemically while soluble minerals are leached out: leaves behind solid material rich in aluminum compound and iron.

vi) **Erosion :**

- ✓ Causes minerals to be dislodged from the parent rock. Minerals are deposited as alluvium in river and lake beds e.g. gold

Factor – (1 mk X 3)

Explanation (1mk X3)

(6marks)

b) **Describe the processes involved in the process of gold.** (5marks)

- ✓ The ores crushed in ball mills and crushed and ground into fine powder.

- ✓ Powder is mixed with water to produce slime.
- ✓ The slime is passed through potassium cyanide solution to dissolve the fine particles of gold.
- ✓ The gold bearing solutions is removed and mixed with zinc dust to precipitate the gold
- ✓ Gold is heated and smelted into gold bars ready for export.

ii) State any five contributions of soda ash to the economy of Kenya. (5marks)

- ✓ Most of the soda ash is exported to earn foreign exchange
- ✓ Production of soda ash earns the government revenue through taxation – used for development of country
- ✓ Employment opportunities have been through mining process and transportation, improved standards.
- ✓ Has contributed to industrialization as soda ash is a raw material in some manufacturing industries.
- ✓ Mining company has developed transport means i.e. Konza – Magadi highway, Nairobi – Magadi tarmac road.
- ✓ Other social amenities i.e. hospitals, water, electricity, schools, have been developed in the area.
- ✓ Magadi town has developed and provided commercial activities for people of the area.

c) Students from Kemu Day secondary school carried a field study on mining of soda ash on Lake Magadi.

i) State any two hypothesis for the study

- ✓ Soda ash is mined through drilling method
- ✓ Soda ash is processed through smelting
- ✓ There are no benefits of mining soda ash to the local community
- ✓ Soda ash is used in cooking food

(Accept any other relevant point)

ii) Give any four problems they are likely to encounter during the study

- ✓ The processes are too long; they will not have time to finish /inadequate time
- ✓ Some will fall sick
- ✓ Tiredness and fatigue
- ✓ Noise pollution from running machine
- ✓ Difficult to move on sandy ground
- ✓ Accidents

(Accept any other relevant point)

8. a) i) **Energy:** - power needed to run a machine or assist humans in production.

(2marks)

ii) Renewable sources of energy

- ✓ sun
- ✓ water
- ✓ steam/geysers
- ✓ wind

- ✓ tidal
- ✓ waves
- ✓ biogas
- ✓ wood

(any first 3)

b) i) Advantages of solar energy

- ✓ cheap
- ✓ easily available
- ✓ clean and environmental friendly
- ✓ it is renewable thus inexhaustible
- ✓ can be stored in batteries and used later
- ✓ requires no maintenance costs once solar panels are installed

(Any first 2=2marks)

ii) Reasons for decline in the use of coal as a source of energy

- ✓ it is too bulky
- ✓ its mining leads to land dereliction
- ✓ it has got low calorific volume
- ✓ it pollutes the environment through smoke
- ✓ exhaustion
- ✓ it is difficult to exploit thus expensive

(Any first 4=4 marks)

c) Four ways Kenya has benefitted from development of seven forks project. (8marks)

- Dams are used to generating electricity which is used for industries and domestic purposes.
- The dams are tourism attraction which generates foreign exchange for the development of the country.
- Development of industries thus creating employment opportunities
- Has created employment opportunities thus Kenyans earn income which raise their standard of living.
- Some reservoirs e.g. Masinga provide water for irrigation thus improving food production.
- Reservoirs provide water for domestic use.
- Dams are bridges

d) i) Energy crisis:

Refers to a situation of difficulty characterized by uncertainties in price and supply of fossil fuels (and rapid depletion of the fuels) (2marks)

Shortage / increased prizes of petroleum products due to increased demand /hoarding.

ii) Effects of energy crisis

(any first 4 points = 4marks)

Negative Effects:-

- ✓ Leads to higher production costs in industrial operations

- ✓ It may lead to eventual closure of industries due to high production costs.
- ✓ Disastrous multiplier effects it will affect the economic sectors e.g. agriculture, manufacturing, tourism etc.
- ✓ Increase prizes of imports leading to unfavorable balance of payment.
- ✓ Lead to slow economic growth of a country
- ✓ Lead to increase in use of other sources of energy e.g. wood leading to deforestation
- ✓ World transport sector which rely on oil shall be affected i.e. transport by road, air, rail and sea.

Positive Effects

- ✓ Likely to motivate the oil producing countries to produce more due to the attractive prices
- ✓ It has encouraged energy conservation since all countries have to restructure their energy policies to conserve supplies.
- ✓ Likely to motivated countries to explore for other sources of energy.

9. a) i) **Fishing ground marked P, Q and R**

- P - North West pacific✓
- Q- North East pacific✓
- R- North West (NW) Atlantic✓

ii) **Explain four conditions that favor fishing industry in the country marked S.**

- Cool waters / meeting of warm Kuroshio and cold Oyashio currents improving the growth of planktons that fish feeds on ✓✓
- Large market from within the country and abroad encourage the fishing industry✓✓
- Well developed technology in fishing as made deep sea fishing very efficient thus increases the amount of fish caught ✓✓
- The ruggedness and the mountainous country with little agricultural activities making fishing the major activity. ✓✓
- The indented coastline /many bays and sheltered inlets provide ideal site for fishing ports/breeding grounds. ✓✓
- Broad continental shelf and shallow water helps to produce ideal conditions for plankton growth ✓✓
- It has heavily industrialized country with her own iron and steel industry that boosts ship building industry. ✓✓

(Any well explained 4X2 =8 marks)

b) i) **Differentiate pelagic and demersal fish.**

Pelagic fish are fish species that are closer to the surface of water while demersal fish are species that live at the bottom of the continental shelf. (2marks)

ii) Ocean currents

- The meeting of the cold and the warm currents cause upwelling of the ocean water which brings plankton /fish food to the surface
- Cold currents provide ideal temperature for survival of numerous species of fish and growth of planktons.
- Warm ocean currents facilitate fishing throughout the year.

(2X2=4marks)

c) i) **State two methods used to preserve fish**

- Freezing ✓
- Salting ✓
- Canning ✓
- Sun drying ✓
- Smoking ✓

(Any 2X1=2marks)

ii) **Explain three problems facing marine fishing in east Africa.**

- High costs of technological /skilled man power hinders large scale fishing thus reduces the profit margin. ✓
- Inadequate capital to purchase equipment limits marine fishing ✓
- Limited market of marine fish as compared to the inland fish result into low demand hence low income / performance ✓
- Inadequate storage facilities leads to wastage of fish hence heavy lose to the fisherman ✓
- Poor road network connecting marine limits marketing of fish in East Africa ✓
- Dispute in the territorial waters hinders the exploitation of marine fish (320kms) ✓

(3X2=6marks)

10. a) i) **Define Re-afforestation**

- This the planting of trees in areas where trees have been cut down/forest have been cleared /deforestation has taken place (2marks)

ii) **State four reasons why afforestation should be encouraged in Kenya**

- To ensure continuous supply of wood fuel /timber/ herbal medicine /raw materials for paper making
- To protect water catchment areas / create micro climate to maintain hydrological cycle
- To create scenic beauty /for aesthetic value
- To expand the habitat for wildlife /conservation of wildlife
- To create employment opportunities
- To reduce importation of forest products /foreign exchange

(4X1)

iii) **Name three provinces in Canada where forestry is practiced on large scale**

- British Columbia
- Quebec
- New Brunswick
- Ontario
- Edward island

- Newfound Land

(3 X 1)

b) Explain three problems which hinder the Kenya government efforts to manage and conserve forest.

- Prolonged drought leads to drying up of some trees
- Some wild animals damage trees through uprooting /trampling
- Rapid increase in population has led to encroachment into forest land hence destruction of trees /high demand for fuel
- Occurrence of forest fires which have led to destruction of large areas under forest
- Illegal logging/ indiscriminate cutting of trees thereby reducing/depleting indigenous species
- Attacks by aphids/locust lead to destruction of trees

(3 X 2)

c) Explain three factors that favor the growth of natural forest on the slopes of Mount Kenya

- Cool climates in the Kenya Highlands favor the growth of trees
- High rainfall /(1000-2000mm) favor the growth of trees
- Rugged landscape in some areas which discourage settlements and agriculture leaving growing of trees as the only alternative
- Varied altitude which favors the growth of different types of trees due to varied temperatures and rainfall
- Creation of forest reserves which enables the forest to develop without interference from humans
- Fertile volcanic soils within the Kenya highlands favor growth of trees.

(3X 2)

d) Identify four factors that favor exploitation of forest in Canada

- Mild winters which facilitate transportation of logs throughout the year
- Availability of water from rivers i.e. river Ottawa for pulp and paper industries
- Availability of cheap and efficient transport system of ferrying logs to factories e.g. rivers /floating on ice
- Availability of ready market in Canada and U S A for the forest products
- Availability of a lot of HEP harnessed from many rivers with waterfalls i.e. River Ottawa provide power for paper industries
- Valley bottoms along the coast provide good sites for the paper mills and there is clay which is used in smoothening the paper.

(4 X 1)