**Name……………………………………………………. Index Number ………………………**

**Candidate’s Signature…………………………………School…………………………………….**

**Date......................................**

**312/2**

**GEOGRAPHY MARKING SCHEME**

**Paper 2**

**Nov. 2021**

Time: 2hours and 45 minutes

**THE KENYA NATIONAL EXAMINATIONS COUNCIL**

**BUTULA CLUSTER FORM 4 JOINT EVALUATION**

**Kenya Certificate of Secondary Education (KCSE)**

GEOGRAPHY **Paper 2**

23/4 hours

**Instructions to candidates**

*(a) This paper has* ***two*** *sections:* ***A*** *and* ***B.***

*(b) Answer* ***all*** *the* ***questions in section A.***

*(c)* ***Answer question 6*** *and any other* ***two*** *questions from section* ***B.***

*(d) All answers must be written in the answer booklet provided.*

*(e)* ***This paper consists of 6 printed pages.***

*(f)* ***Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.***

*(g)* ***Candidates should answer the questions in English.***

|  |  |
| --- | --- |
| **QUESTION** |  |
| SECTION A |  |
| 6 |  |
| 7 |  |
| 8 |  |
| 9 |  |
| 10 |  |
| TOTAL SCORE |  |

**SECTION A**

***Answer all the questions in this section***

1.(a)  **Name two exotic species of trees planted in Kenya. (2 marks)**

- Pine

- Cypress

- Blue gum /eucalyptus

- Wattle

- Kei-apple

- Jacaranda

- Bomb ax

- Grevilea

- Cedar

b) **State three reasons why it is necessary to carry out Afforestation programmers in Kenya. (3 marks)**

- To protect water catchment areas

- To protect soil from erosion by wind/water

- To ensure sustainable supply of forest products

- To put more land under forest cover

- To check the extinction of indigenous trees.

**- To regulate climate**

**2 a) Name two water canals found in Africa. (2mks)**

* Jonglei canal
* Suez canal

**b) Give three roles of transport on industry. (3mks)**

* transportation of raw materials to industries
* transportation of finished goods to the market
* transportation of workers to industries

3. **(a) State three measures which the government of Kenya has taken to reduce infant mortality. (3Marks)**

* The has been widespread immunization for children to control diseases
* The government provides free medical services for children/free mosquito nets
* The government provides parental education to ensure better care for children breastfeeding campaigns/family planning
* There is a government policy granting longer maternity/paternity leave for mothers to take care of the new born
* Research on infant related diseases has been stepped up
* The government encourages provision of homes for orphans
* Training of traditional midwives
* The government has increased/improved medical facilities

(b**) Give two negative effects of low population growth in a country. (2 Marks)**

* It leads to under utilization of resources/slow economic growth
* It leads to reduced market for goods
* It leads to an increased ageing population in a country/leads to high dependency
* It leads to reduced labour force/productivity
* Its expensive to provide social security

4 **a) Give any two minerals found in the Rhur region of Germany. (2mks)**

* Limestone
* Iron
* Coal

**b) Identify three main types of industries found in Kenya. (3mks)**

* Primary
* Secondary
* Tertiary

**5. a) List two factors influencing trade ( 2 marks)**

* + - * Capital
      * Market
      * Government policy
      * Security
      * Availability of goods

b) **Identify THREE major imports to Kenya. (3 marks)**

* Machinery
* Fertilizers
* Pharmaceuticals
* Crude oil
* Skilled labour
* Wheat
* Iron and Steel
* Textiles

**SECTION B**

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

6. 6. Study the photograph below and answer the questions that follow.



**a i) Identify the type of photograph above. (1mk)**

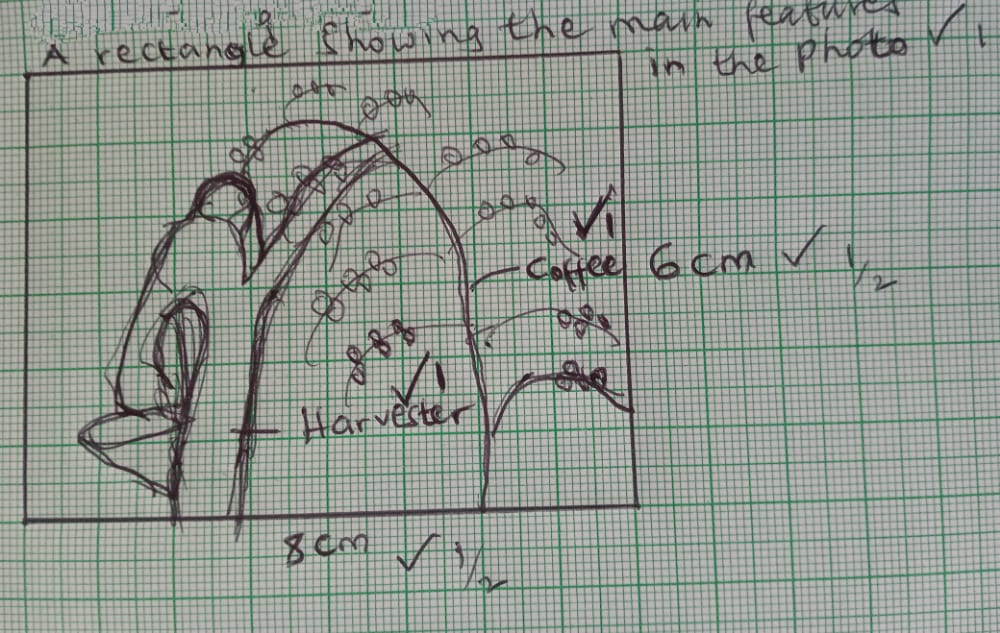
Ground close-up

**ii) Give two reasons for your answer above. (2mks)**

* The camera is held horizontal to the object
* There is one main feature/activity
* Features behind are obscured

**iii) Draw a rectangle measuring 8cm by 6cm. on it, mark and label the main features.**

**(4mks)**

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**b i) Name two types of coffee grown in Kenya. (2mks)**

* Robusta
* Arabica

**ii) Name three counties in Western Kenya where coffee is grown. (3mks)**

* **Bungoma**
* **Kakamega**
* **Vihiga**

**iii) give three conditions favoring coffee growing in Kenya (3marks)**

* Moderate to high temperatures of 14-16 degreed Celsius
* Moderate to high rainfall ranging between 1,000-2,000mm per annum
* Deep fertile volcanic soils
* Undulating landscape with hill slopes and gentle slopes

**c i) State three problems facing coffee farmers in Kenya. (3mks)**

* Soil exhaustion
* Climatic hazards
* Pests and diseases
* Price fluctuations
* Poor roads
* Delays in payments
* Mismanagement.

**ii) Identify three ways in which the government has attempted to promote coffee farmers in Kenya. (3mks)**

* Improved road transport
* Research on new species has been conducted
* Control of pests and diseases
* Advanced loans to farmers
* Provided extension workers to advice farmers
* Helped in marketing coffee

**D) Explain two reasons why coffee production is more developed in Brazil than in Kenya.**

**(4mks)**

* Brazil has more extensive land for coffee farming than Kenya
* Brazil has more developed transport network in form of roads and railway
* There is more efficient marketing in Brazil than in Kenya
* Brazil face s few climatic hazards compared to Kenya which faces prolonged drought.

7.

**a) i) Apart from the sun, name three other sources of energy**

- Water, Wind, Wood, Tides, Biomass

(Any 3x1=3mks)

**ii) State four advantages of using solar energy**

- Cheap source of energy

- Available almost every where

- It can be stored and used later

- Environmentally friendly

- Inexhaustible source of energy. (Any 4x1=4mks)

**b) State four ways in which Kenya has benefited from hydroelectric power scheme**

- Provision of electricity

- Foreign exchange

- Fishing grounds

- Modified the local climate

- Control of floods

- Improvement of transport and communication. (Any 4x1=4mks)

c)**Explain five factors favouring development of Hydroelectric power projects**

- Hard basement rocks to provide a firm foundation for dam construction

- Presence of waterfalls to provide a massive hydraulic force head for power generation

- Regular/large volume of water to ensure continuous power generation

- Non porous rocks to prevent water loss/seepage underground

- Presence of a deep narrow valley/gorge to provide a large reservoir behind the dam/reduce cost of building embankments

- Government policy – availability of land/space for setting up the plant

- Market to buy the produced HEP

- Adequate capital to set up the project since it involves high capital outlay

(Any 5x2=10mks)

**d) Explain two impacts of energy crisis in the society**

- Is a situation where the demand for oil is higher than supply, leading to high oil prices

- Increased transport cost

- Increase in price of oil, increases price of other commodities

- Affect balance of trade

- Agriculture inputs such as fertilizers would become more expensive

(Any 2x2=4mks)

**8 a) Define the term land reclamation. (2mks)**

Land reclamation is the practice by which less useful land is converted into more useful land.

**ii) State three ways through which land can be rehabilitated in Kenya. (3mks)**

* Planting vegetation,
* Making terraces,
* building gabions,
* adding manure,
* filling up quarries.

**b) A part from Mwea Tebere, identify any three irrigation schemes in Kenya. (3mks)**

* Perkerra irrigation scheme,
* Bura, Ahero,
* West Kano,
* Bunyala, etc.

**ii) Explain three physical factors that influenced the location of Mwea Tebere irrigation scheme. (6mks)**

* Mwea plains have black cotton soils suitable for rice farming.
* Gently sloping land to make it possible for irrigation .
* Permanent rivers of Nyamidi, Murubara and Thiba that provided water for irrigation.
* High temperatures suitable for cultivation of rice and irrigation.
* Loamy soils suitable for cultivation of other crops to support families.

**c) Give three problems facing Mwea Tebere irrigation scheme. (3mks)**

* Diseases such as malaria and bilharzia
* Delayed payments
* Weeds
* Financial mismanagement
* Poor access roads
* Pests

**d) Identify two benefits of Zuyder Zee project in Netherlands. (2mks)**

* Creation of large fresh water lakes
* Provision of infrastructure and other social amenities.
* Has reduced tidal flooding.

1. **Explain three similarities between land reclamation in Kenya and Netherlands.**

(6mks)

* In both, reclaimed land is located in low lying areas such as shallow coastal areas and swamps.
* In both, floods are used to control water from entering the reclaimed areas.
* In both, ditches and canals are used to drain water from reclaimed areas.
* In both, scientific methods such as use of fertilizers to improve soil fertility are used.
* In both countries the government organizes the work of reclaiming land.

9 **a) Define the term Mining. (2mks)**

Extraction of valuable minerals and fossil fuels from the earth’s crust

**ii) List three ways in which minerals occur.**

* Beds and seams
* Lodes and veins
* Alluvial deposits
* Weathering products

**b) i) Identify any three minerals mined within the rift valley of Kenya. (3mks)**

* Diatpomite
* Flourspar
* Soda ash
* oil

**ii Mention any two problems associated with underground mining. (2mks)**

* Flooding from subterranean water
* Collapse of tunnel roofs
* Dust leading to respiratory diseases

**c) Study the diagram below and answer the questions that follow**

1. **Name the part labeled WXY (3mks)**

**W-** Gas

**Y-** Oil

**Y-** Water

1. **State three conditions that favor the formation of an oil reservoir. (3mks)**

* Presence of sedimentary rocks
* Presence of organic remains/fossils
* Presence of pressure to compress or organic remains
* Presence of porous rocks.

**d) Students carried out a field study in a mining site.**

**i) State one objective of the study. (1mk)**

* To identify the type of mineral mined
* To establish the significance of the mining activity
* To find out the problems affecting the mining activity

**ii) Give two methods they used to collect data. (2mks)**

* Questionnaires
* Conducted interviews
* Collected rock samples of the ore
* Took photographs

**iii) Identify the features they may have observed to conclude that the land has been**

**derelicted. (3mks)**

* Open pits/Quarries
* Heaps of soil material
* Cleared vegetation
* Bare surface

**iv) A part from land dereliction, give three other effects of mining on the environment.**

**(3mks)**

* Pollution
* Loss of biodiversity
* Disruption of water table
* Soil erosion

10 **a) Define the term environment. (2mks)**

External conditions that surround a plant or an animal.

**ii) State three farming methods that assist in soil conservation. (3mks)**

Contour farming

Mulching

Crop rotation

**b) i) State three ways in which people are affected by floods. (3mks)**

* Loss of lives and property
* Destruction of transport and communication lines
* Displacement of people
* Spread of waterborne diseases like cholera

**ii) Explain three methods in which floods can be controlled. (6mks)**

- Dykes are constructed along river banks levee of rivers to increase their height in order to prevent water from over flowing

Dredging of river channels to deepen/ widen them to make it possible for them to accommodate excess water

* Dams are build across the rivers to control the amount of water discharges downstream/ construction of earth dams to hold back water
* Training/ re- directing a river/ straightening of a river to control its wild flow ( training means cut meander loops
* Planting of trees in the catchment areas to reduce surface run off and increase infiltration
* Divering tributaries to other rivers to reduce the volume

**c) Give two causes of water pollution. (2mks)**

* Oil leaks from ships/ trucks
* Industrial effluent when discharged into rivers/ lakes
* Washing away ( into rivers and lakes) chemical/ fertilizers/ pesticides/ insecticides
* Washing/ bathing/ watering animals in rivers/ lakes
* Disposing of raw sewages into rivers/ lakes
* Surface turnoff/ soil erosion into water depositing silt
* Dumping of solid waste into water courses

**ii) State three effects of water pollution on environment. (3mks)**

* It may cause death of aquatic life
* It destroys aesthetic/ beauty of beach/ water bodies
* It leads to spread of waterborne diseases
* Causes foul smell
* Results to sutrophictaion/ water hyacinth/ water weeds/ alga

**iii) Explain any three ways in which drought and desertification can be controlled.(6mks)**

* Planting drought resistant crops
* Establishment of irrigation programs
* Afforestation and reforestation.
* Destocking of livestock to reduce on soil erosion and overgrazing
* Protection of water catchment areas.