

GEOGRAPHY

PAPER 1, FORM 3,

TERM 2

TIME: 23/4 HOURS

INSTRUCTIONS TO CANDIDATES

- **The paper consists TWO sections A and B.**
- **Answer ALL the questions in section A >**
- **In section B answer Question 6 and any other TWO questions from this section**

SECTION A

ANSWER ALL QUESTIONS IN THIS SECTION.

1. (a) Name a mineral which occurs in each one of the following places in East Africa.

i) Kwale in Kenya. (1mk)

Titanium

ii) Geita in Tanzania (1mk)

Gold

iii) Kilembe in Uganda. (1mk)

Copper

(b) State two problems caused by dereliction of the land due to mining. (2mks)

- **ugliness of the land**

- **Loss of soil productivity**

- **Hollows that may contain stagnant water which is a health hazard**

2. (a) Name three main areas where tropical rain forests are found in the world. (3mks)

- **In Africa ie West African Coast and the Congo Basin**

- **Amazon Basin, Brazil**

- **Malaysia, Indonesia and Thailand.**

(b) State TWO factors favouring the development of soft wood forests in Kenya. (2mks)

- **Cool climate in the highlands**

- **High altitude above 2000m a.s.l**

- **Heavy rainfall of over 1000 mm**

- **Low evaporation rate in the highlands**

- **Steep/rugged relief, hence discouraging settlement and agriculture.**

3. Explain how diamonds are processed. (5mks)

- **Blasting and lifting of the ore to the surface**

- **Crushing and washing of the ore**

- **Passing of the rock over a rotating table with grease**

- **Making water to flow over to remove the waste**

- **Diamonds stick to the grease, remaining on the rotating table**

- **The diamonds are then hand picked and sorted out.**

4. Outline the importance of oil exploitation in the Middle East countries. (5mks)

- **Source of foreign exchange**

- **Oil royalties earn the countries revenue**

- **Creation of employment**

- **Arab investment overseas**

- **Has led to higher per capital income**

- **Provision of social amenities**

- **Growth of urban centres**

- **Development of transport and communication facilities**

5. Describe the characteristics of softwood forests in Canada. (5mks)

- **Evergreen trees**
- **Leaves are needle shaped to reduce water loss**
- **Trees are conical in shape they bear**
- **They bear confers/cones**
- **Trees grow in pure stands**
- **Have little (no undergrowth)**
- **Trees have thick barks**
- **Trees are tall and straight (30-40m)**
- **Mainly natural forests**
- **Tree have shallow roots**
- **Tree trunks are flexible**

SECTION B

ANSWER QUESTION 6 AND ANY OTHER TWO QUESTIONS IN THIS SECTION.

6. Study the data in the table below and answer the questions that follow.

Data showing items exported from countries A and B.

Country A		Country B	
Exports	Tonnes	Exports	Tonnes
Maize	12600	lubricating oil	2200
Coffee	9990	industrial chemicals	2100
Oil cakes	5560	fertilizers	5300
Spices	750	Vehicles	3300
		Wire products	2200
		Paper	2700
Total	28900	Total	17,800

(a) (i) Name the main export of each country. (2mks)

- **Country A- Maize**
- **Country B - Fertilizers**

(ii) Calculate the percentage of the export item with the least tonnage in each country. (4mks)

Country A spices
 $750/28900 \times 100 = 2.595\%$

country B Industrial chemicals
 $\frac{2100 \times 100}{17800} = 11.8\%$

(iii) Draw a divided rectangle 15cm long to represent the export items for country A. (10mks)

A DIVIDED RECTANGLE
REPRESENTING EXPORT
ITEMS FOR COUNTRY A (1MK)

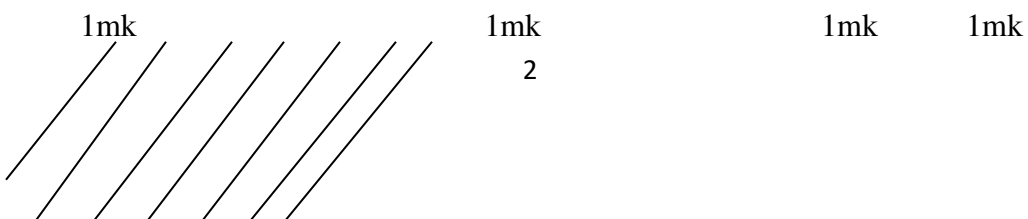
Calculations

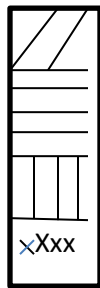
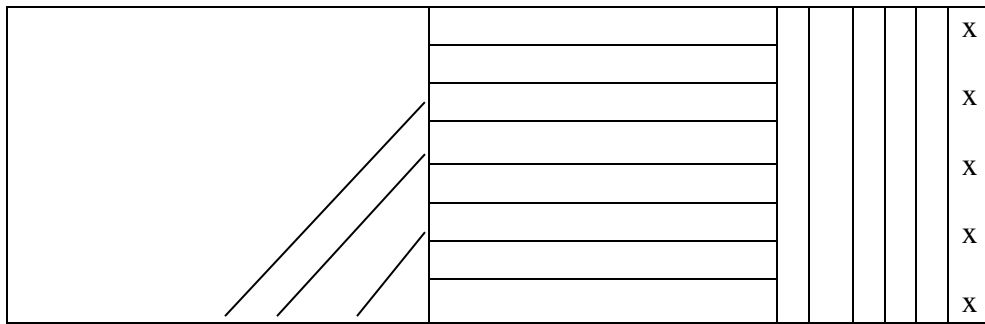
Maize- $12600 \div 28900 \times 15 = 6.5\text{cm}$ 1mk

Coffee $9990 \div 28600 \times 15 = 5.2\text{cm}$ 1mk

Oil cakes- $5560 \div 28900 \times 15 = 2.9\text{cm}$ 1mk

Spices - $750 \div 28900 \times 15 = 0.4\text{cm}$ 1mk





**Maize
coffee**

**oil cakes
spices**

1mks

total 10mks

(iv) State FIVE advantages of using divided rectangles to represent statistical data (5mks)

- **Give a good visual impression**
- **Can be used to represent a wide range of data**
- **Easy to draw**
- **Easy to interpret**
- **Easy to compare**
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(b) Differentiate between

(i) Primary data and secondary data (2mks)

Primary data are facts and figures collected from the field as first-hand original information whereas secondary data is information available in stored/documentary sources.

(ii) Discrete data and continuous data (2mks)

- **Discrete data are the statistics which are given as whole numbers whereas continuous data are statistics which are given in any value ie include fractions and decimals.**

7. (a) State FOUR ways in which minerals occur (4mks)

- **As veins and lodes**
- **Alluvial/placer deposits**
- **Weathering products**
- **Beds/layers and seams**
- **Evaporates**

(b) Name FIVE conditions necessary for the formation of petroleum (5mks)

- **Presence of sedimentary rocks**
- **Presence of organic remains/fossils**
- **Presence of porous rocks**
- **Presence of non-porous rocks.**
- **Pressure to compress the organic remains**

(c) Explain how the following factors influence mining.

(i) Capital (2mks)

- **Mining involves a large capital outlay to buy machinery, pay workers etc**
 - **Processing of the mineral requires much money.** (3mks)
 - (ii) Value of the mineral.
 - **Minerals of high demand and economic value may be mined at a very high cost.**
 - **Minerals of less value can't be mined if cost of mining is higher than the returns**
 - **Minerals of less value are mined at low cost.**
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 - (d) Describe how deep shaft mining is carried out. (6mks)
 - **Vertical shafts are sunk beneath the earth's crust to the mineral deposits**
 - **Horizontal tunnels /galleries are dug to reach the mineral**
 - **Props are erected to support the roof**
 - **Mineral ores are blasted/ drilled**
 - **The ores are transported on light railway tracks**
 - **Cranes are used to transport the ores to the surface.**
 - (e) Give FIVE uses of Soda ash. (5mks)
 - **Used in the manufacture of glass**
 - **Soaps/detergents**
 - **Textile**
 - **Paper**
 - **Used in oil refining**
8. (a) Define the following terms;
- (i) Forestry (2mks)
This is the science of developing and managing forests including cultivating them.
 - (ii) Agro-forestry (2mks)
This is the cultivation of trees/shrubs with crops, pasture and rearing of animals on the same piece of land.
- (b) Explain how the following factors influence the distribution and types of natural forests.
- (i) Climate (4mks)
 - **Different plants require different temperature levels**
 - **Humidity provides moisture for growth**
 - **High precipitation supports luxuriant forests.**
 - **Sunlight is required by plants for photosynthesis.**
 - (ii) Altitude (2mks)
Temperature and rainfall vary with altitude.
Determine the growth of different types of plants/ forests.
 - (iii) Soils (2mks)
 - **Soils texture structure, acidity, organic content, depth etc influence vegetation cover**
 - **Different soil types influence the types of plants growing in different regions**
- (c) Explain FIVE reasons why tropical rain forests are difficult to exploit. (10mks)
- **The forests are composed of a mixed species of tree stands**
 - **The trees have thick buttress roots**
 - **Jungle environment makes penetration into the forest hard**
 - **Muddy roads making transport difficult**
 - **Trees have large trunks and bulky making it difficult to cut and transport them**
 - **Extremely humid conditions**
 - **Dangerous wild apes and reptiles**
- (d) Give THREE examples of indigenous soft wood trees in Kenya. (3mks)
- **Cedar**

- Podo
- Bamboo

9. (a) Differentiate between human geography and economic geography. (2mks)

- **Human Geography is concerned with the activities performed by man on the earth's surface, whereas, economic geography analyse's the trend in the distribution of human activities and examines reasons behind this trend.**

(b) Name at least FIVE human activities in Kenya. (5mks)

- **Fishing**
- **farming**
- **Mining**
- **Industry**
- **Settlement**
- **Transport**
- **Communication**
- **Trade etc**

(c) Your Geography class organized a field study on wildlife at Lake Nakuru National Park.

(i) Apart from preparing a route map, identify other ways in which the class prepared for the study. (5mks)

- **asking for permission from relevant authorities**
- **Organizing a pre-visit**
- **Preparing suitable methods of data collection.**
- **Preparing a working schedule**
- **Assembling the required tools fro the study**
- **Arranging on transport/finances**

(ii) Why was it necessary to prepare a route map? (4mks)

- **To guide on where to find specific features**
- **To avoid getting lost during the study**
- **To help prepare a working schedule**
- **To ensure all areas are covered during the study**
- **To help estimate the distance**

(iii) Identify the activities the class was involved in during the study. (6mks)

- **Observing**
- **Taking photographs/video**
- **Recording**
- **Counting**
- **Interviewing**
- **Administering questionnaires**
- **Taking Notes**
- **Drawing sketches**
- **Collecting samples**

(iv) Give THREE methods the class used to record data. (3mks)

- **Taking notes**
- **Taking photographs**
- **Drawing sketches**
- **Video taking**