

312/2

GEOGRAPHY

Paper 2

TIME 2³/₄ HOURS



Atika School

F r e e O n l i n e A c a d e m y

Geography

Paper 2

Time 2³/₄ Hours

INSTRUCTIONS TO CANDIDATES:

- This paper has **two** sections **A** and **B**
- Answer All questions in Section **A**
- In section **B** answer question **6** and any other **two** questions.
- All answers must be written in the answer sheet provided.

SECTION A (25MARKS)

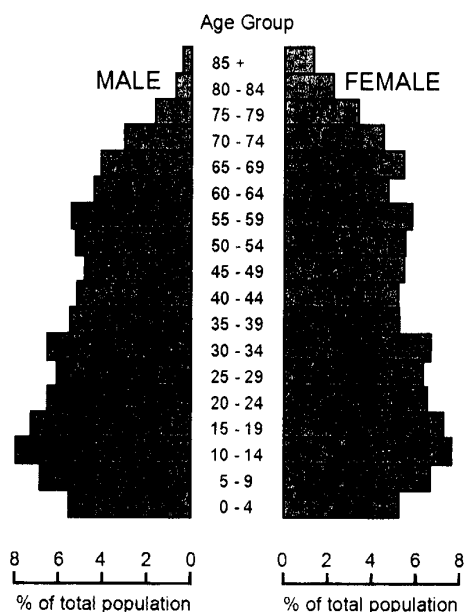
Answer ALL the questions in this section.

1. a) State **two** characteristics of market gardening. (2mks)
b)i) Give **two** reasons why horticulture is more developed in Netherlands than in Kenya. (2mks)
ii) Cite **two** advantages of growing horticultural crops in green-houses. (2mks)
2. a) Name **two** major regions with high cottage industrial concentration in India. (2mks)
b) State **three** reasons why the new county government system should encourage the Jua kali industries in their regions. (3mks)
3. a)i) What is eco-tourism? (1mk)
ii) Apart from marine parks, give **two** other tourist attractions at the coast of Kenya. (2mks)
b) State **two** factors why Switzerland receives more tourists than Kenya. (2mks)
4. a) Give **two** reasons for the decline of the use of coal as a major source of energy in the Ruhr Industrial region. (2mks)
b) State **three** benefits that would result from rural electrification in Kenya. (3mks)
5. a) Distinguish between the terms forest and forestry. (2mks)
b) Describe **two** adaptation of the coniferous forest to the environment. (2mks)

SECTION B

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

6. The Age-sex pyramid below represents the population of country X. Use it to answer the questions that follow.



- a) Describe **four** characteristics of the population represented by the pyramid above. (4mks)
- b) Explain **three** measures likely to be taken by the country X represented above to reduce infant mortality rate. (3mks)
- c) State **three** advantages of use of age-sex pyramid to represent statistical data. (3mks)
- d) Explain **four** problems associated with high population growth rate in developing countries. (4mks)
- e) Explain how the following physical factors affect population density in East Africa.
- Climatic conditions. (2mks)
 - Relief. (2mks)
7. a) Define the following terms;
- Incentives. (1mk)
 - Balance of trade. (1mk)
- b) Outline **four** objectives of COMESA. (4mks)
- c) Explain **three** factors that inhibit trade between Kenya and her neighbors. (6mks)
- d) What **three** measures has the Kenyan government taken to reduce her unfavorable balance of trade? (6mks)
- e) Your geography class has been divided in groups of five students each. Each group is to carry out a field study on the suitability of starting a retail business in the nearest market centre.
- Give **three** preparations you would make before carrying out the actual field work. (3mks)
 - Give **two** reasons why group work will be necessary in carrying out the study. (2mks)

- iii) Cite **two** follow up activities you would carry out after the field study. (2mks)
8. a).i) Differentiate between land reclamation and land rehabilitation. (2mks)
- ii) What is a polder? (1mk)
- b) List **two** methods used in land reclamation in Kenya. (2mks)
- c) State **three** physical factors that influenced the location of Mwea irrigation scheme. (3mks)
- d) i) Describe the stages involved in land reclamation in the Netherlands. (8mks)
- ii) Compare land reclamation in Kenya and Netherlands under the following sub-headings;
- 1) Scale of operation (2mks)
- 2) Agricultural output (2mks)
- e).i) Name **two** main projects of land reclamation in the Netherlands. (2mks)
- ii) State **three** factors that favour farming in the polder. (3mks)
9. a) Define the term global warming (2mks)
- b) Distinguish between environmental conservation and environmental management (2mks)
- c) State **four** reasons why Kenya should conserve her environment. (4mks)
- d) Explain **four** effects of land pollution to the environment. (8mks)
- e) Briefly explain the main reasons for the following environmental acts in the law of Kenya.
- i) The factories Act (2mks)
- ii) The water Act (2mks)
- f) Your class intends to carry out a field study on environmental water pollution in the locality
- i) State **one** possible objectives for the study. (1mk)
- ii) Give **two** reasons why you need to conduct a reconnaissance (2mks)
- iii) Suggest any two ways to control the environmental problem under study (2mks)
10. a) Why is mining referred to as a 'robber industry'? (2mks)
- b) Explain how the following factors influence the occurrence of minerals
- i) Vulcanicity (2mks)
- ii) Erosion (2mks)
- c) Give the actual mining sites of the following minerals in Kenya
- i) Salt (1mk)
- ii) Titanium (1mk)
- iii) Diatomite (1mk)
- d) i) Explain how deep-shaft method of mining is carried out. (6mks)
- ii) state **two** conditions necessary for formation of petroleum. (2mks)
- e) i) Outline **two** effects of liberalization of oil industry in Kenya.
- ii) Explain **three** contributions of crude oil to the economy of the Middle East countries. (6mks)

MARKING SCHEME

SECTION A

1. State **two** characteristics of market gardening

- The farms are very small in size
- They are located near urban /market centres
- The farms are located near good communication links with consumers
- Land is intensively farmed
- The work is labour intensive / most work is done by hand

Any 2 points, 1mark each (2x1) –

(2mks)

(b) (i) Give **two** reasons why horticulture is more developed in Netherlands than in Kenya ?

- High demand in Netherlands for horticultural products than in Kenya
- Farmers in Netherlands have more access to capital needed for horticulture farming than in Kenya
- Netherlands unlike Kenya has well organized market procedures through co operatives
- There is more advanced horticultural farming research in Netherlands than in Kenya
- Netherlands unlike in Kenya has highly skilled labour for production and handling of horticultural products
- Netherlands has more advanced technology which has enhanced horticultural farming than in Kenya

Any 3 points, 1mk each (3mks)

(2mks)

(ii) Cite **two** advantages of growing horticultural crops in green – houses

- Plants are safe from climatic hazards like hailstones
- The plants are constantly watered for maximum moisture
- The spread of crop pests and diseases are easily controlled
- Moisture requirements are effectively controlled
- Weeds are easily controlled since the area is relatively small
- The plants are grown throughout the year.

Any 3x 1 (3mks)

2.(a) Name **two** major regions with high cottage industrial concentration in India

- Bombay
- Bhopal
- Gujareti / Ahmadabad
- Madras
- Calicutta
- Magpur
- Madhya
- Lucknow
- Joimshedpur
- Bongalore
- Mysore

Any 2x1 (2mks)

(b) State **three** reasons why the new county government system should encourage the Jua Kali industries in their regions

- It will be a major source of self employment, especially in rural areas
- To provide quality products at affordable prices to the locals
- Helps reduce/eliminate rural – urban migration
- It will save on foreign exchange by minimizing the countries imports are exported abroad
- To utilize materials which would otherwise be dumped hence reducing garbage accumulation
- Source of income to people / raising their living standards of the rural people.
- Helps in preservation of traditional culture and national heritage
- Does not require expensive machinery since production is manual.
- Empowers people to initiate new projects thus reducing over reliance / dependence on government

Any 2x 1 (2mks)

3. (a) (i) What is ecotourism?

- Refers to an environment friendly tourism whereby tourists enjoy what nature has provided for enjoyment and at the same time protect / conserve what has provided

(1mk)

(ii) Apart from marine parks give two other tourists attractions at the coast of Kenya

- Historical sites e.g Fort Jesus, Gedi ruins e.t.c
- Sandy beaches
- Sunny / warm climate

- Traditional / peoples culture
- Water sports e.g surfing, fishing e.t.c
- Coastal land forms / caves, cliffs coral reefs e.t.c
- Mangrove forests

Any 2x1 (2mks)

(b) State two factors why Switzerland receives more tourists than Kenya

- The well developed transport network in Switzerland provides easy access to tourists sites while in Kenya many roads are poorly maintained
- Political neutrality in Switzerland encourages tourists as opposed to Kenya where there are reports of insecurity which scare a way tourists
- Switzerland is located in central Europe making it easy accessible to tourists of European origin while Kenya is far fro Europe.
- Switzerland has more effective marketing promotion than Kenya
- In Switzerland there are more encouragement on package tourists which lowers the rates charged for tourists facilities while in Kenya this is not common
- In Switzerland, tourists are charged fairly for services while in Kenya the charges are relatively high.

Any 2pts x 1 (2mks)

4. (a) Give two reasons for the decline of use of coal as a major source of energy in the Ruhr Industrial Region

- Coal produces a lot of smoke hence an environment pollutant
- Its cheaper to transport other sources of fuel to the main industrial sites than coal which is more bulky
- Increased use of better / alternative sources of energy e.g electricity, natural gas etc.
- The actual cost of extracting coal is rising since the mines keep deepening with time

Any 2x1 (2mks)

(b) State three benefits that would result from rural electrification in Kenya

- It would encourage setting up of industrial in the rural areas hence stimulating decentralization of industries
- It would be available for industrial use
- It would reduce excessive cutting down of trees as electricity would be available as an alternative source of energy for domestic use
- It would attract / improve social amenities in rural areas reducing the need for people to move to urban centres
- More people would invest in rural areas which would lead to higher standards of living.
- It would encourage development of horticulture farming and to have ideal storage of perishable products refrigeration.

Any relevant 3x1 (3mks)

5. (a) Distinguish between the terms forest and forestry

Forestry refers to an extensive cover of trees over a large area

Forestry is the science of establishing forests

(2mks)

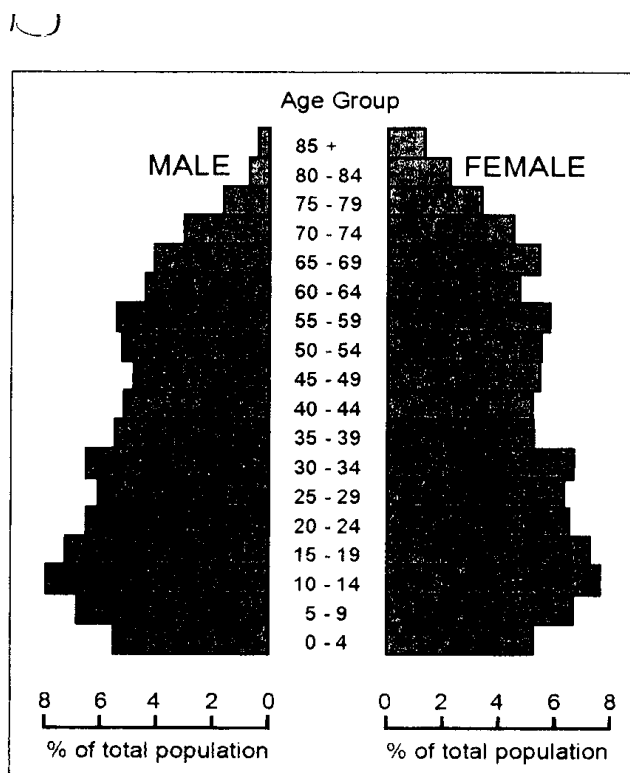
(b) Describe two adoptions of the confer us forests to the environment

- The trees form conical shapes to curb snow fall/ accumulate
- The trees have thick waxy bark to protected them from intense cold conditions
- The trees have thin needle like leaves to reduce the rate of photosynthesis
- The roots are shallow to absorbs the little available water

Any 2x1 (2mks)

SECTION B

6. Use the Age sex pyramid to answer the questions below



(a) For characteristics of the population represented by the pyramid above

- The number of male and female population is almost equal at all levels except the last two cohorts
- The population has high life expectancy
- The ageing population is almost equal to that of the youth
- Dependency ratio is relatively low
- The population has low birth rate
- The population has a low death rate
- The population growth rate is almost zero due to equal birth and death rates.

Any 4x1 (4mks)

(b) Explain three measures likely to be taken by the country X represented above to reduce infant mortality

- Improving medical facilities and immunization of children to control rapid spread of diseases
- Educating parents on modern child care services to keep children healthy and growing to maturity
- Encouraging parents to give their children improved and balanced diet
- Expanding family planning programmes which would lead to emergence of manageable family sizes, increasing higher chances of child survival
- Carrying out extensive research on infant related diseases to come up with ways of controlling them to ensure higher chances of survival.

(c) Three advantages of use of age – sex pyramid to represent statistical data

- Can be used to show proportion of males to females in each age –group
- It is relatively easier to construct once age groups and suitable scale is chosen
- One can easily read and interpret the data presented
- The only ideal method of representing data on population.

Any 3x1 (3mks)

(d) Four problems associated with high population growth rate in developing countries

- High rate of unemployment as job opportunities may not increase at a rate to cope with increasing number of job seekers
- The large number of poor or unemployed people may lead to high crime rate or corruption in the countries
- The high demand of social amenities may lead to congestion in schools, hospitals, housing and transport facilities
- High dependency ratio because parents / guardians would have to support a large number of dependants

- There would be a high demand for food due to high population growth rate and may lead to food shortages
- A strain on natural resources and scarcity of land because more land would be required for farming and settlement

(e) Explain how the following physical factors affect population density in East Africa

(i) climatic conditions

- Very high temperatures in a given region discouraging human settlement hence low population density similarly discourage dense settlement
- Areas receiving high and evenly distributed rainfall above 10000mm per annum have high population densities
- Areas of low and unreliable rainfall have low population densities

NB: To Award/score, temperature and rainfall amount or distribution **MUST** be pin pointed

Any 2x1 (2mks)

(ii) Relief

- Very high altitudes have low densities due to extremely low temperatures
- Very steep sloppy areas are avoided due to difficult in building houses and discourage farming.
- Gentle slopes have high densities due to suitable for farming and settlement

Any 2x1 (2mks)

7. (a) define

(i) Incentives:

- Additional payments or exemptions made by a government to the locals with an aim of improving production (1mk)

(ii) Balance of trade :

- The difference in value between the visible and invisible imports and exports of a country (1mk)

(b) Four objectives of COMESA

- To eliminate taxes on goods produced by members countries
- Enable members to increase use of their raw materials
- Enable people to interact and exchange ideas freely
- Reduce unnecessary competition among member states
- Promote transport and communication between member states
- Establish a common bank to aid in investment in economic and social development
- Create common market for the goods produced in the member countries

Any 4x1 (4mks)

(c) Explain three factors that inhibit trade between Kenya and her neighbors

- Most of her neighbors produce similar good mainly agriculture based or mineral oriented primary products leading to low market
- Poor transport and communication linkage hindering international trade.
- Kenya experiences political hostilities which discourages legal partnership with her neighbours or investors
- Kenya one of the developing countries hence has inadequate or limited production of industrial raw materials required by her neighbours
- Variation of currency exchange rate between Kenya and her neighbours discourage potential investors leading to a decline in trading activities.
- Trading restrictions like tariffs, bans and quotas discourage trade on the items involved

Any 3x2 (6mks)

(d) Three measures taken by Kenyan government to reduce her unfavorable balance of trade.

- The government imposes tariffs on imported goods so as to discourage importation of non essential and luxury goods
- Kenya has established the Export processing Zone (EPZ) and encouraged foreign investors to set up industries to increase the volume goods for export
- The government has made a great effort in establishing and improving internal roads and road links to her neighbours
- The government encourages production of high quality goods through Kenya Bureau standards (KEBS) which are competitive in the world market
- The government has created a ministry of trade and industry to oversee matters relating to trade in the country
- The government organizes trade fares/ programmes to enable the business community advertise their products to widen the market for their goods

Any 3x2 (6mks)

(e) (i) Three preparations before carrying out the actual field study

- Seeking permission from the relevant authorities like Town – clerk/chairperson
- Conduct a pre visit /pre survey/reconnaissance
- Adjust the objectives and hypothesis
- Hold relevant discussions on the topic of study
- Identify appropriate method of data collection and recording

Any 3x1 (3mks)

(ii) Two reasons why group work will be necessary in carrying out a field work

- Reduces too much congestion/ overcrowding in one study area
- Creates particular order when carrying out the exercise
- Reduces fatigue/ bore dom among the participants
- Ensures efficiency and thoroughness in data extraction

Any 2x1 (2mks)

(iii) Two follow –up activities you would carry out after the field study

- Discussing the findings
- Analyzing the data/ content analysis
- Giving relevant advise to the stake holders
- Drawing sketches
- Displaying photographs / sketches

Any 3 points 1mk each (3mks)

8. (a) Differentiate between land reclamation and land rehabilitation

Land reclamation is process by which unproductive or less /land is converted into more useful land while land rehabilitation is the restoration of land that has been destroyed / ruined/ misused through mans negligence to its former productive state (2mks)

(ii) What is polder?

A low lying land reclaimed from the sea and enclosed by dykes the Netherlands (1mk)

(b)Two methods used in land reclamation in Kenya

- Irrigation
- Introduction / growing of drought resistant crops
- Through a forestation
- Through controlling soil erosion
- Draining swamps in food prone areas
- Adding manures and fertilizers to the soil
- Through tse tse fly control

Any 2x1 (2mks)

(c) Three physical factors that influenced the location of Mwea irrigation scheme

- Presence of black cotton clay soils found in Mwea plains
- Gently sloppy land /topographic enable water to flow by gently
- Presence of rivers Thiba and Nyamindi provided regular water supply
- Unreliable and inadequate rainfall received in the area necessitated irrigation
- Availability of more land for expansion in the future

Any 3x1 (3mks)

(d) (i) Describe the stages in involved in land reclamation in the Netherlands

- Protective dykes or sea walls are constructed to enclose the part of the sea to be reclaimed
- Ring canals are constructed on the interior sides of the dykes
- Pumping stations are installed to pump out sea water from the area enclosed by the dykes
- Reeds are planted to help dry out the soil
- Drainage pipes are laid below the soil
- Infrastructure is laid to facilitate faster movement
- The area is divided into rectangular portions using inner dykes and canals
- Soils are treated with chemicals to lower salinity
- Pumping out of water from the polder is made continuously and the plots leased to farmers to begin their work

NB: The sequence must be followed to score (8mks)

(ii) Compare land reclamation in Kenya and Netherlands under the sub- headings

(I)Scale of operation

- In Kenya land reclamation process is done on small scale due to limited initial capital outlay while in Netherlands it is done on large scale because of ready and adequate financial support

(II) Agriculture out put

- In Kenya land reclamation results into relatively higher agricultural produce to supplement food sources with little or no surplus for the market. While in Netherlands large scale agricultural out put I realized due to adequate financial back ups for both local consumption and export (2mks)

(e) (i) Name **two** main projects of land reclamation in the Netherlands

- Delta plan project
- Zuider Zee /Zuyder Zee project (2mks)

(ii) State three factors that favour farming in the polder

- Well drained marine soils
- Cool temperatures
- High rainfall amount
- Low rate of evaporation
- Availability of water for irrigation
- Market for agricultural produce
- Flat land for mechanization
- Good control of water level in the soil
- Modern methods of farming (Any 3x1 (3mks))

9. (a) Define global warming

- Refers to the increase in heat levels in the lower atmosphere occasionally by presence of green house gases e.g carbon dioxide which depletes the ozone making it transparent to the incoming ultra –violet (u.v) rays (2mks)

(b) Distinguish between environmental conservation and and environmental management

- Environmental conservation refers to the protection ,preservation and proper utilization of the resources in the environment to avoid depletion, wastage or loss, while environmental management is the effective planning and control of the process and activities that could cause deterioration of the environment (2mks)

(c) Four reasons why Kenya should conserve her environment

- To sustain life on the earth surface
- To protect the endangered species of both plants and animals
- To maintain the aesthetic value of the environment
- To preserve cultural heritage
- For care full utilization of natural resources and in sustainable manner
- To control /curb effects of global warming

(Any 4x1 (4mks))

(d) Four effects of land pollution to the environment

- The garbage dumped on the land may result in foul smell or air pollution which is hazardous to human health
- The garbage dumped by be washed into the rivers or following streams causing water pollution
- Accumulation of garbage may result in blocked of foot paths, roads and drainage systems
- The garbage can be a breeding ground for rodents
- Flies and cockroaches which can cause diseases outbreak
- Heaps of garbage are eyesore because they make the surrounding ugly /unpleasant

(Any 4x2 (8mks))

(e) Reasons for the following environmental Acts

(i) The factors Act

- Gives clear guidelines in the health safety and general welfare of the employees in factories
- Regulate discharge of industrial influents into water sources before treatment
- Requires that fumes from factors are free of dust and other pollutant emissions

(Any 2x1 2mks)

(ii) Water Act

- Protects certain water catchments zones against any form of pollution
- Prohibits disposal of wastes into water sources
- Ensures proper conservation and use of water resources
- Initiates and support floods control measures

(f) (i) Objectives to field study on environment water pollution

- To find out the main pollutants of water in the area of fields study
- To find out the main human activities that cause water pollution
- To identify the negative effects caused by polluted water to human beings and livestock

- To determine measures the government has taken to control water pollution in the area of study (Any 1x1= 1mk)

(ii) Two reasons why you need to conduct reconnaissance

- To be familiar with area of study
- To enable the research to estimate the cost of the study
- To help the researcher to know possible problems which may be encountered during the study
- It helps the researcher to prepare a working schedule Any 2x1 = 2mks

(iii) Any two ways to control the environmental problem (water pollution)

- Introduce strict laws to curb waste disposal in water bodies
- Educating the public on healthy waste disposal
- Identify main causes of water pollution and put controls

Any 2x1 = 2mks

10. (a) Why is mining referred to as a ‘Robber Industrial’?

- Because it involves exploitation extraction of exhaustible substance / minerals from the earths crust which are irresponsible (2mks)

(b) How these factors influence minerals occurrence

(i) Vulcanicity

- Due to volcanic activity, minerals in molten rocks solidify in the cracks, crevices, faults and joints of the igneous rocks as veins (little deposits)or lodes(dargedeposits) (2mks)

(iii)Erosion

- The process of erosion loosens small mineral particles which get transported by running water in streams and rivers to lowlands. They are then deposited as alluvial sediments within clay, silt , sand and gravel (2mks)

(c) Mining sites of – (Kenya)

(i) salt – Ngomeni or magadi (1mk)

(ii) Titanium – Kwale (1mk)

(iii)Diatomite – Kariandusi (1mk)

(d) (i) Deep shaft mining method

- A vertical shaft is sunk to reach the mineral seam or beds
- Horizontal funnels are dug from the shaft to reach the mineral bearing rocks
- Props are erected to support the roots of the tunnels
- The rocks are blasted with explosion or dug out using mechanized shovels and pick axes
- Ore is transported on light rail tracks or conveyor belts to the base of the shaft
- The ore is then loaded on to a lift or large for hoisting on to the surface

NB: sequence must be followed to score

(6mks)

(d) (ii) Two conditions necessary for formation of petroleum

- Presence / deposits of remains of flova and fauna fossils over a long period of time
- Presence of non porous rock beneath the deposits of flora and fauna
- Deposition of other larger rocks / non – porous rocks over the remains of flora and fauna
- Compression of remains of flora and fauna due to folding of the larger rocks (2mks)

(e) (i) Two effects of liberalization of oil industry in Kenya

- It has created variation in price of petroleum products
- It has created wide spread availability of petroleum products
- It has encouraged importation of refined petroleum products
- It has led to mushrooming of many petroleum product dealers
- It has caused frequent price adjustments by oil dealers. (2mks)

(ii) Three contributions of crude oil to middle ease economics

- Earn the countries foreign exchange when crude oils exported to other countries
- The money earned is used in further developing other sectors of the economy
- The petroleum industry provides employment to very many people, thus improving their living standards
- The industry has led to the rapid growth of towns which also act as international trade centres e.g Dubai
- Earnings from oil products have led to development of infrastructure such as roads railways, airports e.t.c in the countries