

NAME _____ INDEX NO. _____

312/1
GEOGRAPHY
PAPER 1
JULY/AUGUST 2011
2 ¾ HOURS

FORM 4 MID – YEAR ASSESSMENT TEST 2011
Kenya Certificate of Secondary Education
GEOGRAPHY
PAPER 1
2 ¾ HOURS

INSTRUCTIONS TO CANDIDATES

This paper consists of two sections A and B
Answer all questions in section A
In section B, answer question 6 and any other two questions

This paper consists of 4 printed pages

Turn Over

SECTION A

Answer all questions in this section

1. (a) Name **two** minerals of the inner core of the earth (2mks)
(b) State **three** forces that give the earth its geoid shape (3mks)
2. (a) Distinguish between Salinas and playas (2mks)
(b) Name **three** sources of underground water (3mks)
3. (a) Name **two** types of mountain vegetation (2mks)
(b) Identify **three** factors that influence mountain vegetation (3mks)
4. (a) Define the term tsunami (2mks)
(b) State **three** negative effects of tsunami (3mks)
5. (a) State **two** factors that influence landslides (2mks)
(b) Name the main planetary winds in the Northern hemisphere (3mks)

SECTION B

Answer question 6 and any other two questions from this section

6. Study the map of Homa bay (1:50,000) sheet 129/2 provided and answer the following questions
(a)
 - (i) Give the six grid reference of Nyalkinyi Dam on the North Eastern part of the map (2mk)
 - (ii) What is the height of the trigonometrical station at grid reference 5138 (2mks)
 - (iii) What is the distance in kilometers along the national reserve boundary on the South west part (2mks)
 - (iv) Calculate the area of Olambwe valley national reserve (2mks)
 - (v) What is the index of the adjoining sheet to the East of the area covered by the map (1mk)
(b)
 - (i) Describe the relief of the area covered by the map (4mks)
 - (ii) Citing evidence from the map give **three** social services provided in the area covered by the map (3mks)
(c) Students from God Jope school carried out a field study on urbanization
 - (i) Explain the factors they identified that favoured the location of Homabay township (6mks)
 - (ii) Give **three** problems they are likely to have encountered (3mks)
7. (a)
 - (i) What is biological weathering (1mk)
 - (ii) Explain **three** causes of biological weathering (6mks)
(b) Explain **two** factors that influence weathering (4mks)
(c) Describe the following chemical weathering processes
 - (i) Hydration (3mks)
 - (ii) Oxidation (3mks)
 - (iii) Carbonation (3mks)
(d) Students from your class intends to carry out a field study in Murang'a county
 - (i) Give **three** reasons why reconnaissance will be important (3mks)
 - (ii) State **two** methods they would use to record the information collected (2mks)

8. (a) (i) Distinguish between a solfatara and a mofette (2mks)
(ii) Name **two** areas in Kenya where geysers are found (2mks)
(iii) State **three** economic benefits of geysers (3mks)
- (b) With the aid of well labelled diagrams describe how the following features are formed
(i) Volcanic plug (6mks)
(ii) Caldera (through violent explosion) (6mks)
- (c) Explain **three** negative effects of vulcanicity in Kenya (6mks)
9. (a) Study the graph below and answer the questions that follow

- (i) Describe the characteristics of the climate represented on the graph (5mks)
(ii) State **three** characteristics of natural vegetation likely to be found in the region represented by the graph (3mks)
- (b) Explain **four** factors that influence climate (8mks)
- (c) (i) Define climate change (2mks)
(ii) Give **three** natural causes of climate change (3mks)
- (d) How has climate change affected the environment (4mks)

10. (a) Give the main types of desert surfaces (3mks)
- (b) Describe how each of the following features are formed by water action in the desert
- (i) Wadis (3mks)
 - (ii) Mesas and buttes (4mks)
- (c) Explain **three** ways through which wind transport its load (6mks)
- (d) Students from a school in Garissa plan to undertake a field study in desert region in Kenya
- (i) Formulate **three** hypotheses they would have for the study (3mks)
 - (ii) Give **three** wind depositional features they may have identified (3mks)
 - (iii) Name **three** secondary sources of data they would use to collect the information (3 mks)

**312/1
GEOGRAPHY
PAPER 1
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**FORM 4 MID – YEAR ASSESSMENT TEST 2011
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GEOGRAPHY
PAPER 1
MARKING SCHEME**

1. (a) Iron✓
Nickel ✓ 2mks
- (b) Forces
Centripetal force✓
Centrifugal force✓
Gravitational force✓ max 3mks
2. (a) A playa is a basin of inland drainage containing a lake and usually surrounded by a sheet of mud whereas a salina is a dried up playa✓✓ 2mks
- (b) Sources of underground water
- Seepage from rain water✓
- Percolation from lake or sea water✓
- Plutonic water trapped in rocks ✓ 3mks
3. Types of mountain vegetation
- Savanna ✓ - Heath✓ - Rainforest✓
- Bamboo forest✓ - Moorland ✓ 2mks
- (b) - Nature of the prevailing winds ✓
- The soil✓
- The amount of rainfall experienced✓
- The Altitude✓
- The temperatures✓ 3mks
4. Tsunami
A large scale sea wave caused by an earthquake shock on the sea floor✓ 2mks
- (b) Negative effects of Tsunami
- Triggers off faulting, folding and vulcanicity✓
- Causes flooding to the nearby coastal areas✓
- Loss of lives and damage to property✓
- In case there are nuclear installations; it may lead to break down of reactors leading excessive radiation / environmental pollution. max 3mks
5. Factors influencing landslides
- Undercutting on the base of a steep slope by a river or sea✓
- Steepening of slope by human activities✓
- Prolonged heavy rainfall✓
- Frost action 2mks
- (b) Planetary winds in Northern hemisphere
- Westerlies✓
- N.E trade winds✓
- Polar Easterlies✓ 3mks

This paper consists of 7 printed pages

Turn Over

6. (a) (i) 657416 ✓✓ 2mks
(ii) Height 5596m✓✓ 2mks
(iii) Distance 5.8km✓ 2mks
(iv) Area 22.5km²✓✓ 2mks
(v) 129/1✓ 1mk
(b) Relief
- The area is gently sloping to the North Eastern part of the area covered by the map (lake region)✓
- There are many isolated hills especially North Western part of the area covered by the map e.g. God Ariyo✓
- There are steep slopes around ruri hills✓
- South Western area is gentle sloping ✓ probably the floor of Olambwe valley
- The highest point is 5550ft and the lowest is 3750ft ✓ max 4mks

(ii) <u>Social service</u>	<u>evidence</u>	
Education	- schools and village polytechnic✓	
Religion	- church at grid ref 6242✓	
Health	- hospital at Homabay municipality✓	
Security	- police station grid ref 5535✓	Max 3 marks

NB: No evidence no mark

- (c) (i) Factors
- Good network of transport and communication due to presence of all weather road✓ making it accessible
- Gently sloping land which reduces the cost of constructing buildings. ✓✓
- Availability of water due to presence of lake for domestic and industrial use ✓ ✓
- Adequate security due to presence of a police station which is conducive for investments and settlements✓ 6mks
(ii) Problems
- Tedious journey✓
- Attack by wild animals✓
- Unfavourable weather conditions i.e scorching sun✓ 3mks

7. (a) (i) Biological weathering is breaking of rocks into smaller pieces as a result of living organisms like plants, animals, man and micro-organisms acting on rocks✓ 1mk
(ii) Causes
- As plant roots grow and penetrate into cracks/joints of rocks they exert a lot of pressure on the cracks. This causes strain in the rock which eventually breaks away. ✓✓
- Simple plants like lichens and algae that grow on rock surfaces keep the rock surface moist hence encourage chemical weathering✓✓
- Plants produce organic matter which when rotting produces a lot of humic acid that encourage chemical decay of the rock✓✓
- Burrowing animals like earthworms and moles break the small rocks into smaller soil particles which enhance weathering✓✓
- Activities of man like mining, digging and burning of vegetation causes stress within rocks leading to weathering ✓✓ Max 6mks
(b) Factors
- Characteristics of the rock✓f
Rocks structure, mineral composition, texture permeability and hardness make it susceptible or resistant to weathering✓e
- Time ✓f
Time taken determines the degree of weathering of a rock ✓e

- Topography√f

Weathering is more intense on gentle slopes√e

-Climate conditions√f

Climatic elements like temperature, rainfall frost, sunshine and humidity affect the type and rate of weathering√e

f2

e2

Max 4mks

(c) (i) Hydration

- Minerals within rocks absorbs water√
- Rocks expand causing internal stress√
- Stress causes fracturing and breakdown of rocks√

3mks

(ii) Oxidation

- Oxygen combines with mineral compounds in rocks forming iron oxides√/ferrous oxides
- Yellow brown crust which easily crumbles makes the rocks to break √

3mks

(iii) Carbonation

Rain water combines with carbon dioxide forms a weak carbonic acid√

- Carbonic acid/acidic rainwater falls on jointed limestone rocks√
- Acidic rainwater reacts with limestone as it percolates through the limestone rock reacts with the rock along the joints√
- Reaction forms calcium bicarbonate which is soluble√
- Material formed get washed away in solution√

Max 3mks

(d) (i)

- Familiarize with the area of study√
- Determine the suitability of the study area√
- Identify methods of data collection and recording√
- Formulate relevant hypothesis and objectives√
- Draw appropriate working schedule√
- Get into contact with necessary guides√
- Identify likely problems to be encountered√

Max 3mks

(ii)

- Taking photographs√/ Video taping√/filming
- Field sketching√
- Tabulation√
- Mapping √
- Note taking√

Max 2mks

8.

(a) (i) A solfatara is a subsidiary vent on a volcano or a hole in the ground which emits gases composed of sulphurous compounds while a moffette is a subsidiary vent on a volcano or a hole in the ground that emits carbon dioxide gas√√

2mks

(ii) Areas where geysers are found

- The Western shores of lake Bogoria√
- Ol Karia in Naivasha√

2mks

(iii) Economic benefits of geysers

- They are harnessed to generate geothermal power√
- They attract tourists hence earn a country foreign exchange√
- Helps in creating job opportunities√

3mks

(b) (i) A volcanic plug

- A column of magma cooled and solidified inside the vent of the volcanic cone ✓ t
- Volcanic cone is eroded over time exposing the column of magma in the vent ✓ t
- The rocks of the column resist erosion hence remain standing out as a plug or volcanic neck ✓ t

(b) (ii) Formation of caldera

- After volcanic activity (eruption) outpouring of lava forms a volcanic cone ✓ t
- The vent may be sealed when the magma in the vent settles and solidifies ✓ t

- Gas and steam in the interiors of the earth are heated by magma forcing them to expand, leading to an increase in \sqrt{t} pressure below the plug
- Eventually the pressure is released and the volcano explodes violently, blowing off its upper part \sqrt{t}
- A large basin shaped depression called a caldera is formed \sqrt{t}

(c) Negative effects of volcanicity

- Volcanic materials like ashes and granite rocks result in infertile soils which hinder farming $\sqrt{\sqrt{}}$
- Leeward slopes of volcanic mountains receive low and unreliable rainfall which inhibits agriculture $\sqrt{\sqrt{}}$
- The rugged nature of some volcanic landscapes discourages settlements and agriculture $\sqrt{\sqrt{}}$
- Some volcanic features e.g. steep slopes are barriers to the construction of communication lines $\sqrt{\sqrt{}}$
- Poisonous gases lead to spread of ailments $\sqrt{\sqrt{}}$

(3 x 2) = Max 6mks

9. (a) (i)

- The temperature is higher between March and September $\sqrt{}$
- Most rainfall is received during the warmer period $\sqrt{}$
- Single maxima rainfall regime
- Highest temperature is experienced in Dec 23°C and lowest in June 9°C $\sqrt{}$
- Temperature range 14°C
- Rainfall is about 655mm $\sqrt{}$

5mks

(ii)

- Tall grass $\sqrt{}$
- Umbrella shaped trees $\sqrt{}$
- Thicket/bush/shrubs $\sqrt{}$

3mks

(b) Factors that influence climate

Aspect ✓f

- In Northern hemisphere, North facing slopes are cooler than the South facing slopes. ✓e
Latitude ✓f

- Areas near the equator are hotter than those away from the equator because sun's rays hit at right angle and travel a short distance ✓e

Altitude ✓f

- Lowlands are usually warmer than highlands because of high percentage of hygroscopic substances that block escaping solar energy ✓e

Continentality ✓f

- During winter coastal lands are warmer than the interior ✓e, / they also receive more rainfall as wind bearing rain drop their moisture at coastal belt ✓

Ocean currents, ✓f warm ocean currents raise temperature and cause heavy rainfall as the coastal ✓e region while cold ocean currents cause chilly ✓/ cold conditions and very little or no rainfall. ✓

Wind/ air masses ✓f - warm air masses bring rainfall where as cold ones cause aridity ✓

f 4 }
e 4 }

Max 8mks

(c) (i) Climate change

Establishment of a new climate system with changes in climatic elements e.g. temperature and precipitation over continuous period of time ✓✓ 2mks

(ii) Causes (natural)

- Vulcanicity ✓
- Variation in solar output ✓
- Variation in earth's orbital characteristics ✓
- Variation in atmospheric carbon dioxide ✓

3mks

(d) Effects of element

effect explained

- Increased rainfall ✓ - leads to floods ✓
- Reduced rainfall ✓ - leads to drought ✓
- Increased temperature ✓ - leads to receding ice caps ✓
- rising levels in the sea ✓
- high evaporation ✓
- extraction of some plant and animal species

Element 2 }
Effect 2 }

4mks

10.

(a) - Sandy deserts ✓

- Rocky deserts ✓
- Stony desert ✓

3mks

(b) (i)

- Surface run-off cuts rill ✓
- Rills merge to form gullies ✓
- Continued vertical erosion on the gullies ✓ form deep sided, flat floored valley known's a wadi ✓

Max 3mks

Mesas and buttes

- Residual hills which are flat topped ✓ are formed with steep sided valleys known's messas ✓
- Continued erosion reduces the size of the hills (messas) known's buttes ✓

4mks

- (c) Saltation√ w – medium sized particles are transported by hopping and bouncing along the ground surface√ e
- Suspension√ w – very fine and light particles like dust are picked up by the wind and carried within the turbulence of the wind√ e
- Surface creep√ w – large and heavy particles e.g. rock pebbles and boulders are rolled along the ground surface√ e

w 3 }
e 3 } 6mks

- (d) – Most of the landforms are wind depositional features√
- There are no barchans in the region√

(ii) – Draas√

- Sand dunes√

- Loess√

Award for barchans, seif etc

3mks

(iii) – Text books√

- Journals√ magazines/periodicals

- Watching films/ video clips √

3mks

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FORM 4 MID – YEAR ASSESSMENT TEST 2011
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INSTRUCTIONS TO CANDIDATES

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

This paper consists of 3 printed pages

Turn Over

SECTION A

1. (a) Give **two** characteristics of market oriented industries (2mks)
(b) State **three** problems hindering industrial decentralization in Kenya (3mks)
2. (a) Name **two** species of hardwood forests grown in Kenya (2mks)
(b) State **three** factors that favour the development of softwood forests in Kenya (3mks)
3. (a) Identify **three** characteristics of factory farming (3mks)
(b) State **two** economic factors that influence agriculture (2mks)
4. (a) Define urbanization (2mks)
(b) State **three** social problems experienced in urban centres (3mks)
5. (a) Name **two** types of flowers which are commercially growth in Kenya (2mks)
(b) State **three** human factors that favour horticulture in Netherlands (3mks)

SECTION B

Answer question 6 and any other two questions from this section

6. The table below shows three crops produced in Kenya in thousand metric tonnes between 2003 and 2005. Use it to answer question (a) i, ii, and iii

CROP PRODUCTION IN THOUSAND METRIC TONS

CROP/YEAR	2003	2004	2005
Tea	30,000	45,000	52,000
Coffee	24,000	35,000	41,000
Maize	18,000	20,000	24,000

- (a) (i) Using a scale of 1cm to represent 10,000 metric tonnes draw a comparative bar graph to represent the data above (7mks)
(ii) State **three** advantages of using comparative bar graph to represent data (3mks)
(iii) Calculate the percentage increase in coffee production between years 2003 and 2005 (1mk)
 - (b) State **four** physical factors that favour wheat farming in Kenya (4mks)
 - (c) Give **four** problems faced by wheat farmers in Kenya (4mks)
 - (d) Explain **three** factors that favour mechanization of wheat farming in Canada (6mks)
7. (a) (i) Differentiate between the terms transport and communication (2mks)
(ii) Give **five** ways in which Kenya benefits from air links with the rest of the world (5mks)
 - (b) State **five** factors that have hindered the development of river transport in Kenya (5mks)
 - (c) Explain **four** reasons why there are few railway links among African countries (8mks)
 - (d) State **five** recent trends being observed in the communication industry in Kenya (5mks)
8. (a) (i) Define the following terms as used in population
(i) Population structure (1mk)
(ii) Mortality rate (1mk)
 - (ii) State **five** reasons as to why it is necessary to carry out regular population census (5mks)
 - (b) Explain how the following factors influence population growth rate
(i) Fertility rate (2mks)
(ii) Migration (2mks)
(iii) Socio-economic factors (2mks)

- (c) State **four** causes of urban to urban migration in Kenya (4mks)
- (d) Explain **four** problems created by the decline in population in Sweden (8mks)
9. (a) (i) Differentiate between pelagic fish and demersal fish (2mks)
- (ii) State **four** economic factors that favour fishing (4mks)
- (b) (i) Define the term fish farming (1mk)
- (ii) Explain **four** reasons why the government of Kenya is encouraging fish farming (8mks)
- (c) State **four** reasons why marine fishing is less popular in East African coast (4mks)
- Use the map below to answer question D**

- (d) Explain **three** conditions that favour fishing in shaded coastal waters (6mks)
10. (a) (i) Define the term environment (1mk)
- (ii) Give **three** conditions under which the environment may be preserved (3mks)
- (iii) Apart from floods, name **four** other types of environmental hazards (2mks)
- (b) Explain **four** consequent environmental problems associated with floods (8mks)
- (c) State the efforts being made to combat floods as an environmental hazard (5mks)
- (d) (i) Name **three** non governmental organizations supporting environmental conservation efforts in Kenya (3mks)
- (ii) Name **three** acts in the laws of Kenya that are supposed to enforce proper use of the environment, protect endangered species and encourage conservation of natural resources (3mks)

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MARKING SCHEME

1. (a) Characteristics of market oriented industries

- Produce perishable ✓commodities
- Make fragile goods✓
- Mostly located close to the market✓
- Requires good accessibility✓

Any 3 x 1 = 3mks

(b) Problems hindering industrial decentralization in Kenya

- Inadequate market for manufactured goods in rural areas✓
- Inadequate power supply in rural areas✓
- Rural areas have poor infrastructure✓
- Insecurity in rural areas✓
- Inadequate high level skilled labour in rural areas✓

Any 3 x 1 = 3mks

2. (a) 2 species of hardwood forests grown in Kenya

- Meru oak✓
- Elgon teak✓
- Red ceda✓
- Mvule✓
- Muringa✓
- Mahogany✓
- Ebony✓
- Cape chestnut✓

Any 2 x 1 = 2mks

(b) 3 factors that favour the development of softwood forests in Kenya

- Cool climate enable trees to grow✓/flourish
- Highlands receive high amount of rainfall✓
- Rugged✓ highlands discourage settlement and agricultural activities leaving forestry as the alternative
- High demand for softwood products encourage tree planting✓
- Deep soils favour forest growth ✓
- Softwood grow quite fast due to warm temperature✓

Any 3 x 1 = 3mks

This paper consists of 8 printed pages

Turn Over

3. (a) 3 characteristics of factory farming
- Farming is for commercial purposes✓
 - High breed✓ seeds and animals are kept
 - Intensive use of pesticides ✓and fertilizers
 - High scientific management✓ and control of growing conditions of both plants and animals
 - High capital investment✓
- Any 3 x 1 = 3mks
- (b) 2 economic factors that influence agriculture
- Operation cost✓
 - Marketing expenses✓
 - Price fluctuation✓
 - Government policy✓
- Any 2 x 1 = 2mks
4. (a) Define urbanization
- It is the growth or spread of towns in a country ✓✓
 - It also refers to the process by which population is transformed from a rural based agricultural lifestyle to an urban-based non agricultural lifestyle✓✓
- Any 1 x 2 = 2mks
- (b) 3 social problems experienced in the urban centres
- Inadequate housing✓/slums/shanties
 - Pollution-diseases✓
 - Unemployment✓
 - Social evils/prostitution✓
 - Inadequate social amenities✓ i.e. schools, hospitals
- Any 3 x 1 = 3mks
5. (a) 2 types of flowers which are commercially grown in Kenya
- Carnations✓
 - Orchids✓
 - Roses✓
 - Lilies✓
 - Gladioli✓
 - Solidago✓
- Any 2 x 1 = 2mks
- (b) 3 human factors that favour horticulture in Netherlands
- Availability of skilled labour✓
 - Availability of transport system e.g. roads, airways✓
 - Advanced technology✓
 - Availability of capital✓
 - Ready market from surrounding industrialized nations✓
 - Well organized co-operative societies✓
- Any 3 x 1 = 3mks

SECTION B

6. CROP PRODUCTION IN KENYA BETWEEN 2003-2005
PRODUCTION IN THOUSAND METRIC TONES
0 20,000 40,000 60,000 2003 2004 2005
Tea Coffee Maize Scale v.s 1cm rep. Thousand metric tones Total 7 mks
√1 √1 √1

6. (a) (ii) Advantages of using comparative bar graph
- Gives good visual impression✓/neat/clear
 - Easy to interpret✓/read
 - Easy to construct✓/draw
 - Can be used for comparison purposes✓
 - Can be used to represent many items✓

Any 3 x 1 = 3mks

- (ii) Percentage increase in coffee production between 2003 and 2005

$$\begin{aligned} \text{Difference} &= 41,000,000 \text{ tonnes} - 24,000,000 \text{ tonnes} \\ &= 17,000,000 \text{ tonnes} \\ \text{Percentage} &= \frac{17,000,000}{24,000,000} \times 100 \\ &= 70.8\% \text{ / } 70.83\% \end{aligned}$$

1mk

- (b) Physical factors that favour wheat farming in Kenya

- Moderate temperature✓/15⁰C – 20⁰C
- Warm dry sunny spell ✓/for ripening
- Volcanic soil✓/well drained✓/deep✓
- Gentle✓/undulating slope
- High altitude✓

Any 4 x 1 = 4mks

- (c) Problems faced by wheat farmers in Kenya

- Diseases- stem rust, ✓/brown leaf rust, brow leaf blight
- Pests - aphids,✓/ shiny cereal weevil
- Sometimes inadequate rainfall✓
- Price fluctuation on the domestic✓ market
- Inadequate storage facilities ✓/at times leading to damage of the grain
- Competition from imported wheat✓

Any 4 x 1 = 4mks

- (d) Factors which favour mechanization of wheat farming in Canada

- Availability of technology/skilled labour provide the required technical know how in mechanized farming✓✓
- Farmers have adequate capital to set up large farms and buy the required machineries✓✓
- Wheat farms are large/expensive/land is sparsely populated thus low social cost of displacement✓✓
- Canada plains are gently sloping/flat which are suitable for mechanization✓✓

Any 3 x 2 = 6mks

7. (a) (i) Differentiate between transport and communication

Transport is the movement of people and goods from one place to another while communication is the process of transmitting or exchanging information between persons✓✓

2mks

- (ii) Ways in which Kenya benefits from air links with the rest of the world

- It encourages the growth of tourism industry✓
- Promote horticultural industry/perishable goods can be transported easily✓
- It enables cultural exchange between Kenya and other countries✓
- It encourages international trade✓
- Promote international cooperation/facilitate emergency services✓
- It earns foreign exchange from industries✓

Any 5 x 1 = 5mks

(b) Factors hindering river transport in Kenya

- Most rivers are narrow[√] and shallow
- Some rivers are seasonal[√]/fluctuate in volume
- Some rivers are too short[√] to be used
- Some rivers have waterfalls, [√]rapids and cataracts
- Inadequate capital[√] limits development on river transport
- Inadequate technical know how[√]/skills to develop river transport
- There is stiff competition from other means of transport [√]
- Presence of floating vegetation[√] in some rivers hinders movement

Any 5 x 1 = 5mks

(c) Reasons for few railway links among African countries

- Railway lines have different gauges, which makes it difficult for them to be interconnected^{√√}
- Most of African countries produce similar goods hence there is limited trade among them which does not encourage construction of railway lines^{√√}
- Most African countries do not have enough capital to construct railway lines which are expensive^{√√}
- Varied terrain in Africa makes it difficult to construct railway lines^{√√}
- Some parts of Africa are unproductive and so it would be uneconomical to construct railway lines through them^{√√}
- Competition from other cheaper means of transport e.g. road^{√√}
- Political differences among African states makes the construction of railway lines difficult^{√√}

Any 4 x 2 = 8mks

(d) Recent trends being observed in the communication industry in Kenya

- Expansion of telephone facilities[√]
- Introduction of mobile phone services[√]
- Liberalization of the press/press freedom[√]
- Liberalization of postal services[√]
- Licensing of more private radio and T.V stations[√]
- Use of internet facilities/cable network.[√]

5 x 1 = 5mks

8. (a) (i) Define the following terms

Population structure

This refers to the composition of a given population in terms of age and sex at a particular time[√]

1mk

Mortality rate

This is the number of deaths per 1000 people per year[√]

(ii) Reasons why it is necessary to carry out regular census

- Enables the government to plan[√] facilities for the people
- One is able to predict future population trend[√]
- The government can know composition of its people[√]
- To know fertility and mortality trend[√]
- Avail employment for the people[√]
- Making decision on new administrative boundaries[√]

Any 5 x 1 = 5mks

(b) Explain how the following factors influence population growth rate

(i) Fertility rate

High fertility rate leads to higher number of children per woman in productive life. This leads to high population growth rate^{√√}

2mks

(ii) Migration

Countries that allows people to move to its territories will result to higher population on other hand, countries where people leave have lower population√√ 2mks

(iii) Socio-economic factors

Factors like longer years in school, female empowerment over their sexuality has led to reduced fertility leading low population growth rates√√

Urban lifestyle, single parenthood, same sex marriage has also reduced fertility rates√√

Any 1 x 2 = 2mks

(c) Causes of urban to urban migration in Kenya

- Search for employment√
- Transfer by the employer/deployment√
- Educational purposes√
- Change of profession√
- Health care√
- Investment in a new station√

Any 4 x 1 = 4mks

(d) Problems created by the decline in population in Sweden

- Inadequate manpower which makes labour expensive or to be imported√√
- Underutilization of social amenities such as schools because of low birth rate√√
- There is old age dependency ratio which is caused by high life expectancy√√
- Rural depopulation due to increased urbanization hence inadequate manpower in rural areas√√

Any 4 x 2 = 8mks

9. (a) (i) Differentiate between pelagic fish and demersal fish

Pelagic fish live in the waters near to the surface or at shallow depth while demersal fish live in the deeper waters close to or on the bottom of water bodies√√ 2mks

(ii) State economic factors that favour fishing

- Availability of capital√
- Availability of advanced technology√
- Presence of ready market√
- Presence of reliable transport√

4 x 1 = 4mks

(b) (i) Define fish farming

This is artificial rearing or breeding of fish in a controlled area for either commercial or domestic use. √ 1mk

(ii) Reasons why the government of Kenya is encouraging fish farming

- Contributes to meeting the demand for food e.g. animal protein by increasing the supply to the local population√√
- To create more employment opportunities so as to raise the living standard/minimize unemployment√√
- Allow better use of land/water resources e.g. pond swamps/requires little space to establish√√
- Fish farming is free from inter-territorial conflicts and disputes unlike marine fishing√√
- Fish farms are easier to manage compared to marine fishing√√

Any 4 x 2 = 8mks

(c) Reasons why marine fishing is less popular in East African coast

- East Africa has a regular coastline which is not suitable for breeding of fish√
- It has a narrow continental shelf which are not suitable for existence of plankton√
- Inadequate capital to buy expensive equipments required in sea fishing√
- Sea fishing is not popular amongst people of East Africa√
- Face steep competition in open seas from developed countries√
- Low level of technology limit deep sea fishing√

Any 4 x 1 = 4mks

(d) Conditions that favour fishing in shaded coastal waters

- Cool climate in these regions provide ideal temperatures for survival of numerous species of fish✓✓
- Warm North Pacific current that flows along the coastline raises the temperatures of waters making it ideal for growth of plankton✓✓
- Indented coastline with several bays provides secure breeding grounds for fish/bays-sheltered from strong winds ✓✓
- Extensive shallow continental shelf along the coast favours fish breeding✓✓
- Rugged landscape/dense forest cover/rocky surface discourage agricultural activities. Fishing is alternative economic activity✓✓
- Advanced technology in the region has assisted in providing fishing equipment/deep sea fishing✓✓
- Presence of good fishing ports such as Prince Rupert Newport makes it easier to access foreign markets.✓✓

Any 3 x 2 = 6mks

10. (a) (i) Define the term environment

The whole sum of the surrounding external conditions within which an organism exists ✓
1mk

(ii) Give 3 conditions under which the environment may be preserved

- When human population is threatened e.g. by pollution✓
- When species are threatened with extinction✓
- When resources are exhaustible.✓

3 x 1 = 3mks

(iii) Apart from floods name 4 other types of environmental hazards

- Pollution✓
- Pests and diseases✓
- Windstorms✓
- Drought✓
- Lightning and thunder✓
- Tropical cyclones✓
- Civil strife and ethnic clashes✓
- Volcanic eruptions✓
- Toxic gases✓
- Fires✓
- Oil spills✓

Any 2 x 1 = 2mks

(b) Explain 4 consequent environmental problems associated with floods

- Floods displace people - they disrupt human activities and force people to move away from their homes as they are displaced by the flood waters✓✓
- Floods destroy property - there is a lot of loss and damage to property as buildings are destroyed, animals are killed and infrastructure damaged✓✓
- Death of both animals and people - lives are lost as people drown, animals die✓✓
- Floods can cause landslides - they cause sudden movements of land from upper to lower areas burying people and their property and destroying the landscape✓✓
- A lot of diseases are brought about due to people congesting in some areas due to floods e.g. cholera, malaria, diarrhoea and bilharzia✓✓

Any 4 x 2 = 8mks

(c) State the efforts being made to combat floods as an environmental hazards

- Land use regulations to avoid destruction over catchment areas✓
- Building dams✓ dykes and levees
- Re-forestation✓ and planting other vegetation cover along river banks
- Improving and diverting channels to avert floods✓
- Encouraging people to move from flood prone areas and resettling them elsewhere✓

5 x 1 = 5mks

(d) (i) 3 non-governmental organizations supporting environmental conservation efforts in Kenya

- Green belt movement✓
- Forest action network✓
- East African wildlife society✓
- Wildlife fund for nature✓
- Eco-news Africa✓
- ICRAF✓

Any 3 x 1 = 3mks

(ii) 3 acts in the laws of Kenya that are supposed to enforce proper use of the environment, protect endangered species and encourage conservation of natural resources

- The water Act✓
- The river authorities Act✓
- The maritime zone Act✓
- The mining Act✓
- The factories Act✓
- The forest Act✓
- The chiefs Authority Act✓
- The wildlife conservation and management Act✓
- The Agricultural Act✓
- The local government Act✓
- The public health Act✓

Any 3 x 1 = 3mks

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GEOGRAPHY
PAPER 1
JULY/AUGUST 2011
2 ¾ HOURS**

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GEOGRAPHY
PAPER 1**

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