

The Duke of Agorshie.



312/2 MS
GEOGRAPHY
Paper 2
MARKING SCHEME
November 2023

THE KENYA NATIONAL EXAMINATIONS COUNCIL

KENYA CERTIFICATE OF SECONDARY EDUCATION

GEOGRAPHY

The Duke
Paper 2

MARKING SCHEME
(CONFIDENTIAL)

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This marking scheme consists of 14 printed pages.

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Turnover

SECTION A

Answer ALL the questions in this section.

- Bauxite/aluminum
- manganese
- Nickel
- Iron
- Kaolinite
- quartz
- Olivine

No.	Marking Scheme	Marks
(a)	<p>Name two minerals that occur as weathering products.</p> <ul style="list-style-type: none"> - Bauxite/ore of aluminum / Kaolinite - Manganese - Nickel 	2
(b)	<p>State three uses of soda ash.</p> <ul style="list-style-type: none"> - Glass making - Fixing dyes in textile industries - Softening water - Oil refining - Manufacturing soap and detergents - Desulphurizing steel. 	Any 2 x 1 = (2 marks)
	<p>Name the hydro-electric power projects located in each of the following rivers in Africa.</p> <p>(i) River Zambezi – Kariba dam/Cabora bassa dam.</p> <p>(ii) River Volta – Akosombo dam.</p>	Any 3 x 1 = (3marks)
(b)	<p>State three factors that have hindered the development of solar energy in Kenya.</p> <ul style="list-style-type: none"> - Solar energy has low energy output. - The short life span of storage batteries. - Competition from alternative sources. - High cost of purchasing/installation of solar panels/low purchasing power of people. 	Any 3 x 1 = (3marks)

→ glass
→ dyes
→ water
→ soap/detergent
→ steel
→ paper
→ food
→ air cleaners
→ paints
→ pharmaceuticals
→ fertilizers

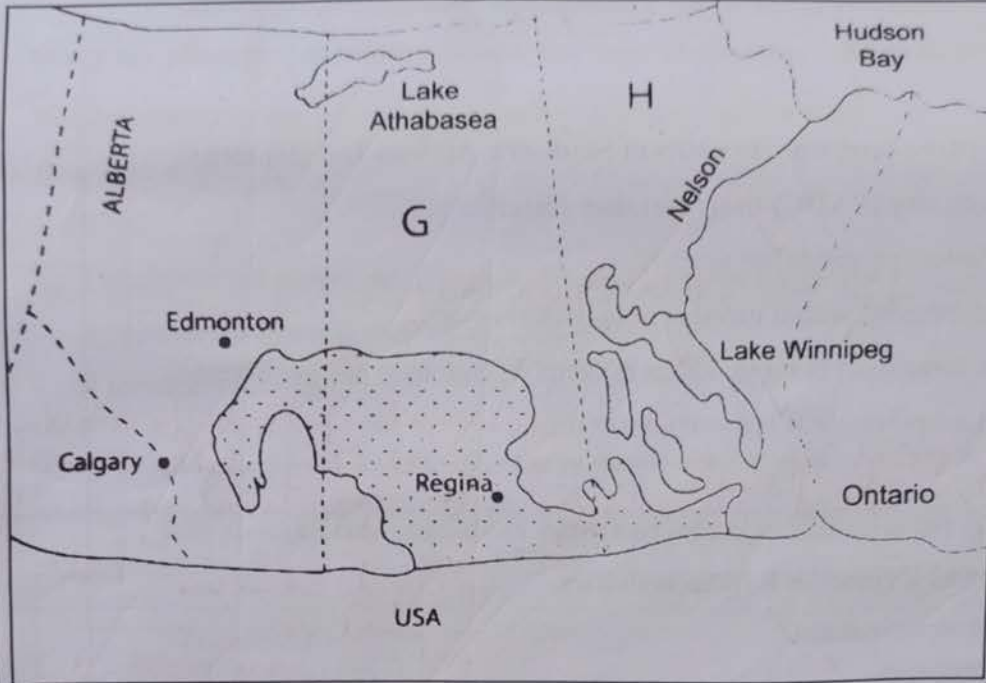
* low energy
* short life span
* competition
* cost (high)
* technology

- inadequate technology

Cardinal

No.	Marking Scheme	Marks
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3. The map below shows wheat growing areas of Canada. Use it to answer question (a).



(a) Name the provinces marked G and H.

G – Saskatchewan ✓

H – Manitoba. ✓

1
1

(1 mark)
2 (1 mark)

(b) State three reasons for the increase in the price of maize in Kenya.

- Adverse climate conditions / prolonged drought experienced leading to low maize production. ✓
- Prevalence of pests / army worms / locusts / diseases ✓ (maize rust / white leaf blight / maize streak / smut / grass leaf spot, ✓)
- High demand for maize / competition for maize as a raw material in manufacturing industries. ✓
- A rise in the cost of inputs / increased cost of production. / increased cost of fuel. ✓
- Reduction in land acreage under which maize is planted. ✓

Any 3 x 1 = (3 marks)

- global rise in food prices ✓
- restrictions on importation of maize ✓
- hoarding of maize ✓

3

3

→ Adverse climate / drought
→ pest
→ disease
→ demand
→ inputs
→ prices
→ restriction on importation
→ hoarding

No.	Marking Scheme	Marks
<p>4. (a)</p> <p>(b)</p>	<p>Explain the term visible trade.</p> <p>The exchange of goods within a nation/between countries/export and imports of goods.</p> <p>State three economic benefits of Southern African Development Community (SADC) to its member states.</p> <ul style="list-style-type: none"> - Variety of goods are available. - Movement within member countries is easier. - A large market for goods from member countries has been created. - A common tariff has been created. 	<p>02</p> <p>(2 marks)</p> <p>Any 3 x 1 = (3 marks)</p>
<p>5. (a)</p> <p>(b)</p>	<p>Apart from pollution, name two other environmental hazards that occur as a result of human activities.</p> <ul style="list-style-type: none"> - Desertification - Flooding - Soil erosion - Forest fires - Earthquake/terrorism - Diseases <p>State three effects of air pollution on the physical environment.</p> <ul style="list-style-type: none"> - Formation of acid rains leading to withering of plants. - There is excess carbon dioxide leading to increase in temperatures/depletion of ozone layer. - Reduction of oxygen in the atmosphere. - Excess dust in the air inhibiting photosynthesis in plants. 	<p>2</p> <p>Any 2 x 1 = (2 marks)</p> <p>Any 3 x 1 = (3marks)</p>

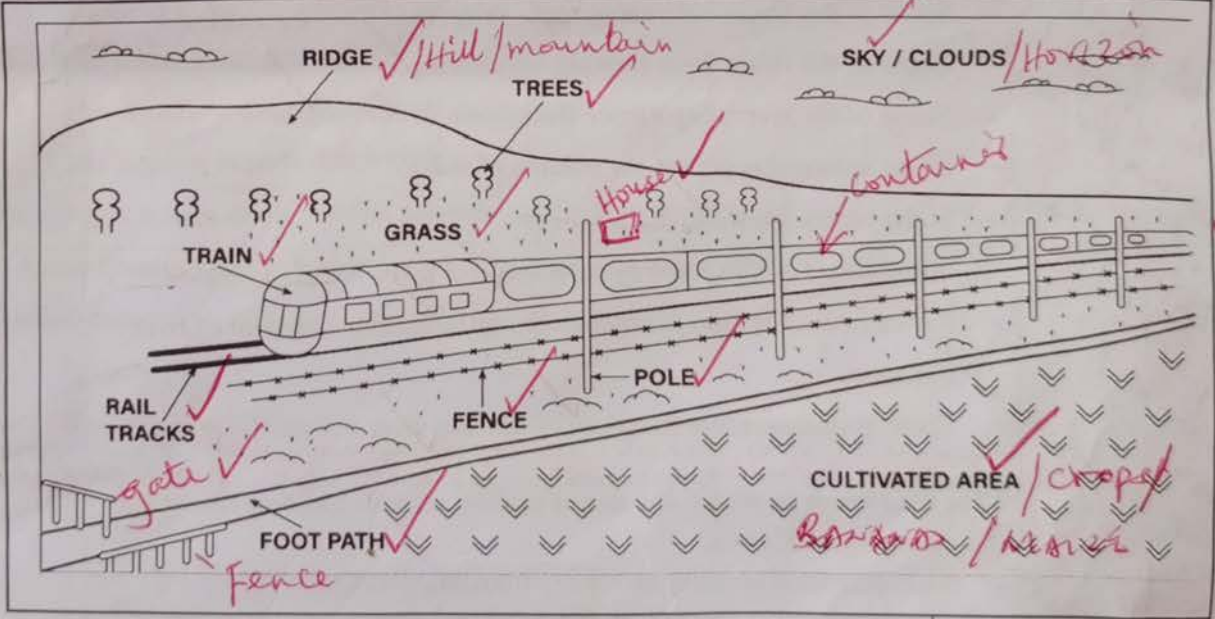
- variety of goods
 - movement
 - large market
 - common tariff
 - capital
 - employment
 - Desertification
 - flooding
 - soil erosion
 - forest fires
 - earthquakes/terrorism
 - forest fires
 - Diseases
 - land slides
 - pest
 - drought
 - land degradation
 - Dam failure

- Grasses emitted cause bad smell
 - dust/smoke/smog reduces visibility

- acid rain
 - ↑ temperature / ↓ ozone layer
 - ↓ oxygen
 - dust / smoke / smog
 - gas
 - ↓ photosynthesis
 - ↓ smell
 - ↓ visibility

cardinal
SECTION B

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

No.	Marking Scheme	Marks
6.	Study the photograph below and use it to answer question (a).	
(a) (i)	<p>What evidence in the photograph shows that it is a ground general view type of photograph?</p> <ul style="list-style-type: none"> - The objects get progressively smaller towards the background. ✓ - It captures the general view of the scenery. ✓ - It focuses on all ^{many} objects. ✓ <p>Draw a rectangle 14 cm by 8 cm to represent the area of the photograph. On it, sketch and label the main features shown on the photograph.</p>	<p>Any 2 x 1 = (2 marks)</p> <p style="text-align: right;">2</p>
	 <p>Labels in the sketch: RIDGE, SKY / CLOUDS, TREES, GRASS, TRAIN, RAIL TRACKS, FENCE, POLE, CULTIVATED AREA, FOOT PATH, gate, House, Containers, Banana/maize.</p>	<p>Rectangle - 1 mark Ridge - 1 mark Rail tracks/train - 1 mark Cultivated area/maize/ banana/maize - 1 mark Containers/train - 1 mark Foot path - 1 mark train - 1 mark clouds/sky - 1 mark</p> <p>Poles - 1 mark Trees/grass - 1 mark Fence - 1 mark Grass - 1 mark Houses - 1 mark Total (6 marks) gate - 1 mark</p>

- training personnel in modern railway technology ✓ M to improve service delivery ✓
- enhancing security ✓/M around railway stations/along railway lines
- to reduce crime ✓/lower accident risk/curb vandalism
- constructing, pressed ✓/M/tunnels/bridges to solve challenges of rugged relief ✓
- promoting package travel ✓/M to lower the cost of long travel
- encourage more people to use railways.

- Standardization
- Peace missions/politicians
- Joint venture
- improvement
- training
- security
- passes/short haul
- package travel
- haul shuttle

- establishment
- rapids/stands/water flow
- floating vegetation
- seasonal fluctuation
- short
- siltation
- capital
- technology
- Narrow
- sharp bend/meanders

- money transfers/savings
- mpesa/online banking
- revenue
- job/employment
- online
- easy borrowing
- lending/borrowing
- easy
- related industries

No.	Marking Scheme	Marks
(b)	<p>Explain four measures that African countries would take to solve the problems associated with railway transport.</p> <ul style="list-style-type: none"> Standardization of the railway gauge to ease connection between countries ✓ reduce transshipment costs. ✓/M Through the African union, establish peace missions/improve relations to reduce vandalism and theft. ✓/M Joint venture in railway construction by regional countries to make the overhead expenditure low/stepwise/country by country development. ✓/M Improvement of existing railway lines/trains with an aim of making them faster/efficient. ✓/M Encourage use of electric trains in order to reduce pollution. ✓/M 	<p>Any 4 x 2 = (8 marks)</p>
(c)	<p>State five reasons why there has been limited use of river transport in Africa.</p> <ul style="list-style-type: none"> Some of the rivers have rapids and waterfalls. ✓/M Some of the rivers have floating vegetation. ✓/M Some of the rivers experience fluctuation in volumes of water/seasonal regimes/low volume of water. ✓/M Some rivers are short/shallow/swift. ✓/M Some rivers are affected by siltation. ✓/M African countries have insufficient capital for development of river transport. ✓/M There is inadequate technology to develop river transport. ✓/M 	<p>Any 5 x 1 = (5 marks)</p>
(d)	<p>Give four ways in which the use of mobile phones has contributed to the economy of Kenya.</p> <ul style="list-style-type: none"> It has provided security on money transfers/savings. ✓/M It has eased money transfers through Mpesa/online banking. ✓/M It provides revenue for the government through taxation. ✓/M It offers job opportunities to Kenyans. ✓/M It has made it easy for traders to buy and sell goods online. ✓/M It has made communication easy. ✓/M It has made lending/borrowing of money easy/convenient. ✓/M 	<p>Any 4 x 1 = (4 marks)</p>

- it has promoted development of related industries

No.	Marking Scheme	Marks
7. (a)	<p>Give four physical conditions that favour sugarcane growing in the Lake Victoria basin.</p> <ul style="list-style-type: none"> - Deep well drained soils ✓/Black cotton soil ✓/clay ✓/alluvial ✓/volcanic ✓/heavy soil ✓ - High temperatures ✓/no frost ✓/high temperature ✓/20°C - 27°C ✓/through out the year ✓ - Gentle slope/undulating land ✓ - High rainfall ✓/1200 - 1500 mm per annum ✓ <p>- Sunny conditions for sucrose accumulation ✓/harvesting ✓/transportation of cane ✓ - well distributed rainfall throughout the year ✓</p>	<p>Any 4 x 1 = (4 marks)</p>
(b) (i)	<p>Describe the stages involved in the processing of sugarcane at the factory.</p> <ul style="list-style-type: none"> - The cane is received and weighed; ✓ - The cane is washed and chopped into pieces; ✓ - The pieces are crushed to extract the juice; ✓ - The juice is put into clarifiers to filter off the impurities; ✓ - The juice is boiled to evaporate the water; ✓ - The juice is further stirred in large tanks to allow crystallization; ✓ - The crystals are separated from molasses; ✓ - The sugar is bleached to whiten; ✓ - Sugar is then dried, cooled, graded, weighed and packed. ✓ 	<p>6 Any 6 x 1 = (6 marks)</p>
(ii)	<p>Apart from sugar, give three other products obtained from sugarcane:</p> <ul style="list-style-type: none"> - Jaggery ✓ - Bagasse ✓ - Cane juice ✓ - Molasses ✓ - Filter cane/filter mud ✓ <p>- ethanol ✓/rum ✓/falernum ✓/alcohol ✓</p>	<p>3 9 Any 3 x 1 = (3 marks)</p>
(c)	<p>Explain three causes of the decline of sugar cane production in Kenya.</p> <ul style="list-style-type: none"> - Crop diversification with farmers venturing into other crops has reduced acreage. ✓ - Climatic changes/prolonged drought has made large scale growing/planting crops that are drought resistant. ✓ 	<p>due to low production ✓</p>

→ soil 3
→ heavy
→ gentle
→ rainfall 2
→ dry spell/sunny

weighed
washed
chopped
crushed
impurities
boiled
stirred
separate molasses
bleached
dried
graded
weighed
packed

diversification
climate change
competition (with other crops)
fires
mismanagement
pest
disease
low prices
competition for cheap inputs

- competition from other land uses ✓
- outbreak of fire destroys the cane leading to heavy losses ✓
- high cost of farm inputs reduces the farmer's profit margin which discourages the farmers ✓
- mismanagement of factories/cooperatives leads to delayed payments ✓
- pests/diseases/white grubs/scale insects/stalk borers/nematodes which destroy the cane ✓

- Diseases/cane mosaic/sunburn ✓
 - Return stubbing ✓
 - Leaf scald ✓
 - Red rot/wilt ✓
 - Low prices offered to the cane farmers by the factories has discouraged farmers from growing sugarcane. ✓
 - Competition from cheap imported sugar ✓ lowers demand for local sugar hence limiting the processing of the sugarcane. ✓

3 x 2 = (6 marks)

(d) Explain three ways in which the Kenya government is promoting the sugar industry.

- Establishment of Kenya Sugar Board to advice on production and marketing of sugar. ✓
- Restricting sugar imports to protect farmers from the flooding of the market with cheap sugar. ✓
- Establishing a scheme for small scale out growers. ✓
- Enforcing laws to protect the farmers from exploitation by middle men. ✓
- Financing research for high yielding cane. ✓
- Subsidizing farm inputs to lower the cost of sugarcane production. ✓
- Providing financial assistance to ailing sugar factories. ✓

- 1) Kenya sugar board ✓
- 2) restrict imports ✓
- 3) small scale out growers ✓
- 4) laws ✓
- 5) research ✓
- 6) subsidies ✓
- 7) assistance & advice ✓
- 8) roads ✓
- 9) electricity ✓

Any 3 x 2 = (6 marks)

8. (a) Define horticulture. ✓
 (i) It is the cultivation of vegetables/fruits/flowers for sale/commercial purposes. ✓

- 1) small ✓
- 2) transport routes ✓
- 3) intensive land ✓
- 4) labour intensive ✓
- 5) capital ✓
- 6) market export ✓
- 7) high output ✓
- 8) scientific management ✓
- 9) perishable ✓

(2 marks)

(ii) Outline five characteristics of horticultural farming in Kenya. ✓

- The farms are usually small. ✓
- The farms are located near well-established transport routes leading to urban areas; ✓
- The land is intensively utilized; ✓
- It is labour intensive; ✓
- It requires heavy capital investment; ✓
- The produce is market oriented; ✓
- Produce output is high; ✓
- The farms are scientifically managed. ✓
- The produce is highly perishable. ✓

- 1) small ✓
- 2) transport routes ✓
- 3) intensive land ✓
- 4) labour intensive ✓
- 5) capital ✓
- 6) market export ✓
- 7) high output ✓
- 8) scientific management ✓
- 9) perishable ✓

Any 5 x 1 = (5 marks)

No.	Marking Scheme	Marks
(b) (i)	<p>Give four physical factors that favour horticultural farming in Kenya.</p> <ul style="list-style-type: none"> - Hot wet climate favours the growth of tropical crops; - Cool wet climate in the highlands favours the growth of temperate crops; - Well drained volcanic soils; <i>barney soils</i> - Availability of water; <i>swales / lakes</i> - Relatively gentle sloping land/undulating. 	<p><i>- Hot</i> <i>- Cool</i> <i>- well drained / loam</i> <i>- water / rivers / lakes</i> <i>- gentle sloping / undulating</i></p> <p style="text-align: center;">4</p> <p>Any 4 x 1 = (4 marks)</p>
(ii)	<p>Explain three challenges that horticultural farmers experience in marketing their produce:</p> <ul style="list-style-type: none"> - Impassable roads during the rainy season/poor roads make it difficult for perishable goods to reach the market on time/losses to the farmers; - Inadequate/poor refrigeration facilities lead to rotting/lowering quality leading to losses/wastage; - Fluctuation of prices in the world market discourages farmers; - Stringent quality standards required at the international market increases cost of production thus lowering profits - Poor marketing strategies lead to reliance on middle men who exploit farmers; - The high cost of transporting produce by air lowers profit margin. <p><i>- competition from other producing countries lowers the market/demand</i></p>	<p><i>1) roads</i> <i>2) refrigeration</i> <i>3) fluctuation prices</i> <i>4) quality measures</i> <i>5) marketing strategies</i> <i>6) cost of transport</i> <i>7) competition</i></p> <p>Any 3 x 2 = (6 marks)</p>

No.	Marking Scheme	Marks
(c)	<p>You intend to carry out a field study in a nearby horticultural farm.</p> <p>(i) Apart from flowers, identify the other two types of crops you are likely to find in the farm.</p> <ul style="list-style-type: none"> - Fruits. ✓ / oranges / Bananas / water melon / pineapples / blackberry / avocados / plums / lemons / dates / pears / paw paw / mangoes / grapes / - Vegetables ✓ / lemons / tangerines / peaches / papaya / french beans / Broccoli / kales / spinach / tomatoes / onions / carrot / cauliflower / baby corn / butternut / garden pea / <p>Give two sources of information that you would use for the field study.</p> <ul style="list-style-type: none"> (ii) - Resource persons / farmers / agricultural officers. ✓ - Journals / magazines / relevant textbooks. / newspapers. ✓ - Maps. ✓ - Documentaries. ✓ / videos / internet. ✓ 	<p>2 x 1 = (2 marks)</p> <p>2</p> <p>Any 2 x 1 = (2 marks)</p>
(iii)	<p>State four factors that have contributed to fast growth of flower farming sub sector in Kenya.</p> <ul style="list-style-type: none"> - Rise in local demand ✓ for flowers / market. ✓ - Increased investment in greenhouses ensuring high quality flower products. ✓ - Low cost of production of flowers ✓ compared to other crops. ✓ - Increased international demand ✓ due to high quality of Kenyan flowers. ✓ - Shift from growing traditional cash crops that are less profitable. ✓ - well organized marketing system / cooperatives which help farmers to export the produce. ✓ - High level research ✓ have lead to development of high yielding varieties of horticultural crops. ✓ - improved transport network / roads / airport, feasible quick transportation / exportation of the produce to the market. ✓ - availability of skilled manpower ✓ for efficient production. ✓ - High population provide cheap labour ✓ 	<p>Any 4 x 1 = (4 marks)</p> <p>4</p>

✓ Adjustment
 ✓ investment
 ✓ low cost of production
 ✓ international demand
 ✓ shift from traditional cash crops
 ✓ research
 ✓ transport
 ✓ skilled manpower
 ✓ High pop.

4 10

⊗

25

No.	Marking Scheme	Marks
<p>9. (a)</p> <p>(i)</p>	<p>Differentiate between pelagic and demersal fish.</p> <p>Pelagic fish mainly live near the surface or in shallow waters lakes/sea/oceans, while demersal are fish that live close to the bottom of water bodies/deep waters. 2</p> <p>(ii) Describe the drift method of fishing.</p> <ul style="list-style-type: none"> - Nets are hang vertically in water; - They are attached to a drifter/boat; - They are kept afloat by floats on the upper side; - The lower side is held by weights; - Several nets can be joined together to form a fleet of nets; - Fish swim through the nets and get trapped by the gills due to small mesh; - The nets are dragged to the shore; - The fish are removed from the nets (and sold); - The nets are then returned back to the sea for more catch. <p style="text-align: right;">6</p>	<p>(2 marks)</p> <ul style="list-style-type: none"> - Vertical - attached - afloat - weights - fleet of nets - gill trap - dragged - removed - Back <p>6 x 1 = (6 marks)</p> <p style="text-align: right;">8</p>
<p>(b)</p>	<p>Explain four reasons why there is widespread fresh water fishing in East Africa.</p> <ul style="list-style-type: none"> - There are several water bodies/rivers/ponds/lakes that host a variety of fish which are exploited. - High demand for fresh water fish which are easily available. - Inland fishing grounds allow use of low technology/traditional methods as most fishing grounds are shallow/most fishermen don't have sophisticated instruments. - High population around the fishing grounds offer market for the fish. - Fresh water fish provide an alternative source of cheap protein. - fresh water fishing requires low capital investment 	<p>Those in low demand for sea fish making fresh water fish more preferred</p> <p>Any 4 x 2 = (8 marks)</p>

Several water bodies
 - high demand
 - low technology
 - high pop
 - protein
 - low capital

No.	Marking Scheme	Marks
(c) (i)	<p>Explain how each of the following factors influence fishing in Kenya and Japan.</p> <ul style="list-style-type: none"> • Market Japan has ready market for fish both locally and internationally while in Kenya, the local market for fish is relatively small as few people eat fish. • Technology Japan has advanced technology leading to efficient fishing in deep water, while Kenya has low technology leading to concentration of fishing along the shores. <p>State the significance of fishing to the economy of Kenya.</p> <p>(ii) - Fishing provides fish which is a source of income to the fishermen; - Fishing creates job opportunities. - Fishing stimulates growth of other related industries. Fish provides raw materials for industries. - Taxation of fishing activities bring revenue to the government.</p>	<p>(2 marks)</p> <p>(2 marks)</p>
	<p>- Fish products are exported attracts sport fishing which earns foreign exchange.</p> <p>- Has led to development of transport and communication networks.</p> <p>fishing is a source of fish - fishing is a source of food/protein - sport fishing promotes tourism</p> <p>↓</p> <ul style="list-style-type: none"> • income • job • industries (other) • raw material • revenue • exported / exchange • food / protein • sport fishing / tourism 	<p>5 x 1 = (5 marks)</p> <p>9</p>

No.	Marking Scheme	Marks
10. (a)	Name two types of settlement patterns found in rural areas.	
(i)	<ul style="list-style-type: none"> - Nucleated/clustered. - Scattered/dispersed. - Linear. - Radial/star shaped. 	(2 marks)
(ii)	<p>State five factors that have contributed to the emergence of slums in urban centres.</p> <ul style="list-style-type: none"> - Some urban dwellers earn low income/are unemployed. - There is shortage of houses/affordable houses. - Some people have low/inadequate purchasing power. - The high cost of land/houses in other parts of town. - There is poor urban planning. - There is high rate of migration to towns. 	(Any 5x1=5 Marks)
(b)	<p>Explain four functions of Eldoret town.</p> <ul style="list-style-type: none"> - Educational centre - it is a home of several educational institutions (universities/colleges/polytechnics). - Industrial centre - It has several manufacturing/processing industries/companies/cooperative creameries. - Recreational centre since there are several hotels/stadium/golf course and entertainment centres. - Commercial centre - it has booming trade in all commercial products. - Transport centre - It has a railway station/international airport/road (junctions). - Administrative centre - it is the headquarters of Uasin Gishu county. - Religious centre - sacred heart cathedral. - Agricultural centre - all kinds of centres - it has several centres of produce. - Commercial centre - it has sajanjion centre, eldoret post office. - Health centre - it has Moi teaching and referral hospital/medicinal, renal hospital, eldoret hospital. - Residential centre - it has elgon view, west side, langas, Kapsoya, buruma, Komkanyi, annex. 	(Any 4 x 2 = (8 marks))

Teacher.co.ke

low income/unemployed
shortage of houses
low purchasing power
poor urban planning
migration
cost of land

educational
industrial
recreational
commercial
transport
administrative
religious
agricultural
health
residential

8

No.	Marking Scheme	Marks
	<p>State four factors that led to the growth of New York city.</p> <ul style="list-style-type: none"> - Open cosmopolitan attitude of New York people. - Economic boost after the war between United States of America and Britain. - Excellent sea port that is centrally located. - Navigable inland water routes via the Hudson River. - There was an expansion of market after construction of the Erie Canal which connected Hudson River to the great lakes. - There were changes in technology leading to more development. 	<p>- presence of international organizations / who</p> <p>- presence of educational / cultural institutions</p> <p>provided with large hinterland</p> <p>industries</p> <p>- high population / immigrants provided industrial labour / market</p> <p>- availability of fresh water / R. Hudson for domestic / industrial use</p> <p>Any 4 x 1 = (4 marks)</p>
(d)	<p>Explain three measures that have been taken to reduce motor vehicle traffic congestion in Nairobi city.</p> <ul style="list-style-type: none"> - Deployment of traffic police/traffic marshalls who control traffic flow (during peak hours). - Construction of by-passes/the expressway to link roads easing traffic flow in the Central Business District (CBD). - Introduction of commuter rail transport to reduce the number of vehicles on the roads. - Upgrading the roads into dual carriage easing movement/allowing more vehicles to flow. - Hiking parking charges in the CBD and surrounding areas hence discouraging use of personal vehicles. - Decentralization of services away from Central Business District to satellite towns reducing movement into the city. 	<p>improving traffic light to</p> <p>high occupancy buses</p> <p>Any 3 x 2 = (6 marks)</p>

- cosmopolitan
- economic boost
- sea port
- Navigable rivers
- expansion of market
- technology
- U.S.A
- Hunt land
- pop.
- fresh water

1) traffic police/marshalls
2) by-pass/expressway
3) commuter rail/buses
4) upgrade roads
5) hiking parking charges
6) Decentralization