

NAME: ADM NO. CLASS:

312/2

GEOGRAPHY

PAPER 2

SEPTEMBER 2022

TIME: 2 HOURS 45 MINS

LANJET JOINT EVALUATION

KENYA CERTIFICATE OF SECONDARY EXAMINATION

312/2

GEOGRAPHY

PAPER 2

AUGUST, 2022

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.

SECTION A:

Answer all the questions in this section.

1. (a) Name TWO African Countries that produce nuclear energy. (2 mks)

- ❖ South Africa
- ❖ Egypt

(b) State THREE reasons that limit the use of nuclear power as a source of energy in Africa. (3 mks)

- ❖ Uranium as a raw material is very expensive and uneconomical to use
- ❖ Nuclear reactors are expensive to build
- ❖ International agreements control and limit production of nuclear power
- ❖ Lack of expertise in nuclear power production
- ❖ Leakage from nuclear plants may cause harmful radiation
- ❖ Radioactive materials/waste may cause environmental damage if poorly disposed.

2. (a) Apart from irrigation, identify TWO other methods of reclaiming land in Kenya. (2 mks)

- ❖ Draining of swamps and flood areas.
- ❖ Tsetse fly control/Control of pests
- ❖ Introduction/Planting of drought resistant crops
- ❖ Control of soil erosion
- ❖ Improvement of soil/application of manures/fertilizers
- ❖ Planting of trees/Afforestation/agroforestry
- ❖ Flood control

(b) State THREE advantages of sprinkler irrigation method. (3 mks)

- ❖ Water is evenly distributed
- ❖ Less water wastage
- ❖ Sprinklers can be moved
- ❖ Amount of water is regulated
- ❖ Soluble fertilizers can be applied with the water
- ❖ Most of the water infiltrates the soil

3. (a) Give TWO reasons why pastoralists keep large herds of animals. (2 mks)

- ❖ Is a sign of wealth
- ❖ Payment of dowry
- ❖ An insurance against death
- ❖ The animals are a source of food, meat and milk.
- ❖ The animals when sold is a source of money
- ❖ The hides/skins are used for clothing

(b) State THREE physical factors that favour dairy farming in the Kenya highlands. (2 mks)

- ❖ Gently sloping landscape for easy movement of the animals
- ❖ Cold climatic conditions ideal for exotic dairy cattle
- ❖ Availability of continuous growth quality pasture throughout the year
- ❖ High rainfall realized throughout the year support the growth of pasture
- ❖ Availability of water from rivers/streams and reservoirs for watering the animals
- ❖ Availability of large tracts of land for establishment of dairy farms

4. (a) Name TWO forms of wildlife in East Africa. (2 mks)

- ❖ Wild animals
- ❖ Vegetation, forests, grasslands.
- ❖ Birds
- ❖ Insects
- ❖ Aquatic life eg fish

(b) State THREE reasons why wildlife should be conserved. (3 mks)

- ❖ For protection of endangered species
- ❖ For proper utilization of marginal areas
- ❖ Contribute to diversification of the economy
- ❖ Promote tourism which is a source of foreign exchange
- ❖ The game parks are good for learning hence promote education and research
- ❖ Promote/create employment opportunities through KWS
- ❖ Creation of game parks has led to development of roads opening especially remote areas
- ❖ Provision of food especially from privately owned parks
- ❖ By protecting forests this promotes lumbering industries
- ❖ Protection of forests also creates a scenic beauty for estiletic value
- ❖ For modification of climate
- ❖ For provision of medicine since some plants have medicinal value

5. Study the map of the Ruhr industrial region and use it to answer the questions that follow.

(i) Name the River marked X. (1 mk)

- ❖ Ruhr River

(ii) Name the Canal marked Y. (1 mk)

- ❖ Lippe canal

(iii) Apart from iron and steel industries, name ONE other industry in the Ruhr region. (1 mk)

- ❖ Petro-chemical industries
- ❖ Textile industries
- ❖ Oil refining industries
- ❖ Electronics industries
- ❖ Food processing industries
- ❖ Cutlery and surgical industries
- ❖ Engineering industries.

(b) State TWO characteristics of Jua Kali industries in Kenya. (2 mks)

- ❖ They are mostly operated in the open/sheds.
- ❖ They use simple equipment.
- ❖ Use locally available/recycled raw materials.
- ❖ Use simple/basic skills in craft.
- ❖ They are operated by individuals/small groups.
- ❖ They are pursued as part time or full-time occupation.
- ❖ Require low capital investment.
- ❖ They are widespread.

SECTION B:

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

6. The table below shows various modes of transport used by domestic tourists visiting national parks and game reserves in Kenya between the years 2017 and 2020. Use it to answer the following questions.

Mode of transport	2017	CT	2018	CT	2019	CT	2020	CT
Road	100000	100000	500000	500000	150000	150000	100000	100000
Air	600000	700000	650000	700000	700000	850000	800000	900000
Water	200000	900000	150000	850000	100000	950000	50000	950000

(a) (i) Calculate the percentage increase in the number of tourists between 2019 and 2020 who used air transport. (2 mks)

❖ 2019 = 700000

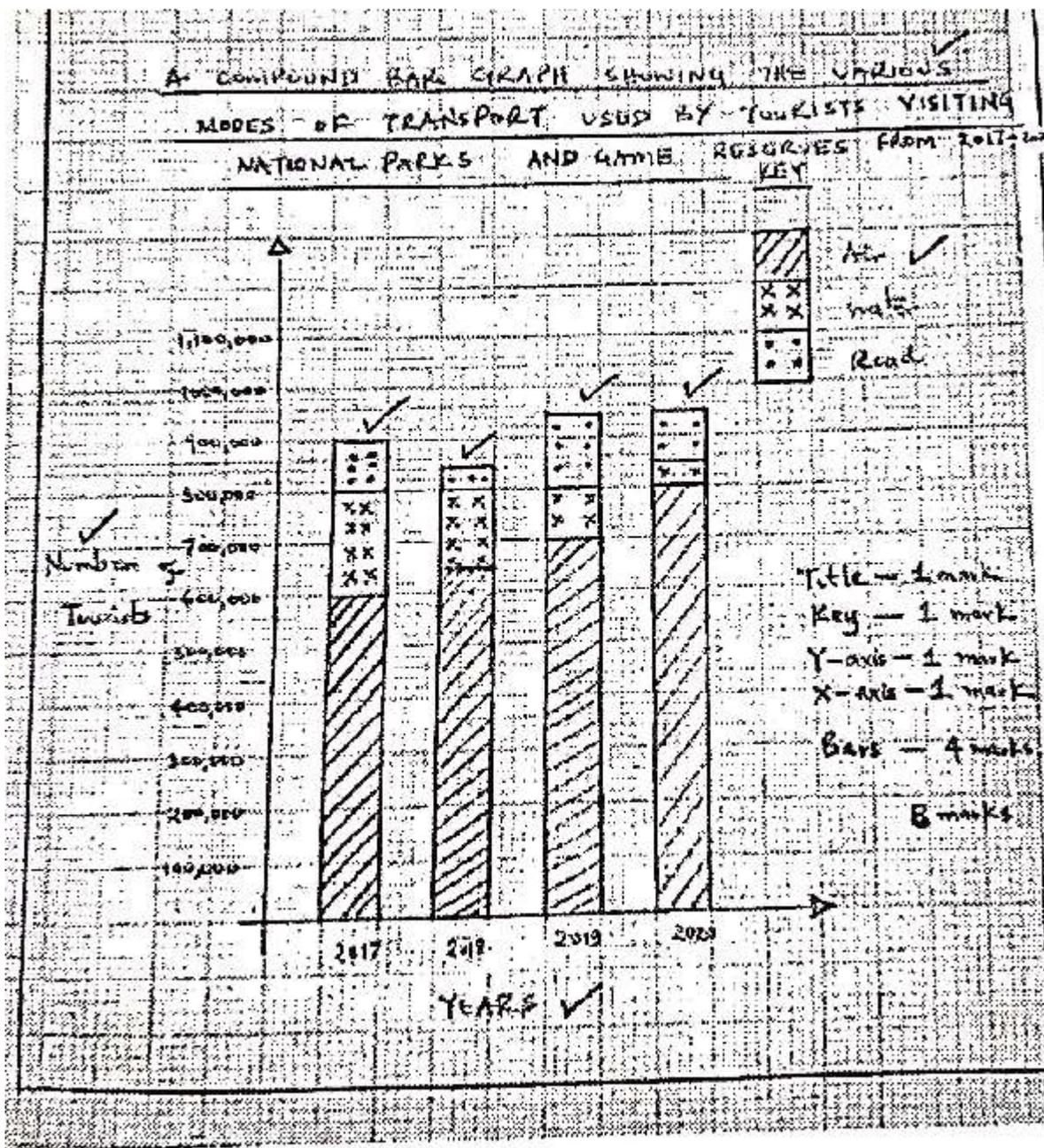
❖ 2020 = 800000

❖ The difference in the number of tourists = $(800000 - 700000) = 100000$

Percentage increase = $100000 (700000 \times 100\%)$

= 14.286%

(ii) Using a vertical scale of 1cm to represent 100000 tourists, draw a compound bar graph to represent the above data. (8 mks)



(iii) List TWO disadvantages of using compound bar graph to represent statistical data. (2 mks)

- ❖ It takes a lot of time to draw due to the many calculations involved

- ❖ The values of individual components are difficult to establish/interpret at a glance
- ❖ It is used to represent a limited number of components on a single bar.
- ❖ Values of many variables are placed together on one bar giving a wrong impression.

(b) (i) **Differentiate between local and international tourism.** (2 mks)

- ❖ Local tourism is the visiting to areas of interest by local residents within their country *while*
- ❖ International tourism is the visiting to areas of interest by foreign tourists from one country to another.

(ii) **Name THREE tourist attraction found in the rift valley region of Kenya.**(3 mks)

- ❖ Varied relief features
- ❖ Wild animals
- ❖ Birds/flamingos
- ❖ Hot springs/geysers/fumaroles/geothermal
- ❖ Vegetation
- ❖ Peoples culture
- ❖ Pre-historic sites/historical sites
- ❖ Mining sites
- ❖ Sports tourism

(c) **Explain FOUR measures that the country governments in Kenya should take in order to promote tourism.** (8 mks)

- ❖ Develop roads/air/water transport to all tourist sites in order to increase accessibility to most tourist sites
- ❖ Improve on security to guarantee safety
- ❖ Market the counties aggressively as tourist destinations in order to attract more tourists.
- ❖ Establish a diversify tourist attraction to avoid depending on the traditional attractions thus reducing competition with other tourist destinations
- ❖ Establish tourist facilities in many parts of the country where tourist potentials exist in order to promote tourism.

7. (a) (i) **What is mining?** (2 mks)

- ❖ The extraction of valuable minerals occurring on/below the earth's surface.

(ii) **Give TWO ways in which mineral ores occur.** (3 mks)

- ❖ Some occur in veins and lodes
- ❖ Some occur in seams/beds
- ❖ Some occur as weathering products
- ❖ Some occur as alluvial deposits/placer deposits
- ❖ Some occur as evaporites

(b) Explain how the following factors influence the exploitation of minerals:

(i) Size of mineral Deposit/Amount of mineral. (2 mks)

- ❖ Presence of larger deposits encourages the exploitation of minerals as they are more likely to produce profit.
- ❖ Presence of small quantities of minerals discourages mining although small mineral deposits may be mined if the minerals are in high demand or in the case that costs are lower than profits.

(ii) Level of Technology. (4 mks)

- ❖ Advanced technology enhances mining using a deep mining method enabling enhanced mining of minerals
- ❖ Less sophisticated technology is mainly used for alluvial surface-based mining
- ❖ Technology is important in prospecting for minerals
- ❖ Developing countries have low levels of technology hindering mining.

(c) Describe the dredging mining method. (4 mks)

- ❖ A dredger floats on the lake/ponds
- ❖ It's a mechanical shovel that cuts through the crust of minerals on the surface of the lake scooping the large chunks of the mineral
- ❖ The large chunks of the scooped minerals are placed on the conveyer belt and set into a crusher
- ❖ The crushed minerals are then mixed with water from the lake
- ❖ Liquor is then added and pumped to the shore to the processing plant.

(d) (i) State THREE uses of soda ash (3 mks)

- ❖ It's raw material for making glass
- ❖ It is used in making detergents
- ❖ It is used in some chemical industries/petroleum refining
- ❖ It is used as a water softener/water treatment
- ❖ It is used in disulphurising steel
- ❖ It is used in textile industries.

(ii) Explain TWO problems facing Soda ash mining at Lake Magadi in Kenya.

(4 mks)

- ❖ The mines are located far away from market towns and export port of Mombasa leading to high transportation costs.
- ❖ Shortage of fresh water for processing and domestic use
- ❖ Shortage of labour to the factory as the mines are located in a sparsely populated area and therefore labour comes from far regions.
- ❖ Competition for market from other major producers such as USA, Israel and China.
- ❖ High production costs leading to low profits.

(e) Describe how diamond is processed in South Africa. (3 mks)

- ❖ Diamond bearing Kimberlite is crushed
- ❖ The crushed rock is mixed with water
- ❖ Diamond sinks to the bottom as it is denser

- ❖ Water and less dense residue are drained off
- ❖ Remaining material is put on heavily greased trays and washed
- ❖ Diamond sticks to the grease
- ❖ Diamonds are then sorted out and graded into gem diamonds and industrial diamonds.

8. (a) Give THREE physical conditions that favour large scale wheat farming in the Canadian Prairies. (3 mks)

- ❖ Cheap, extensive land for mechanization which allows large scale wheat cultivation.
- ❖ Gently sloping land for easy mechanization and good drainage
- ❖ Deep prairie soils/dark brown Chernozems/black cotton soils that require little application of fertilizers
- ❖ Well drained soils
- ❖ Moderate temperatures with warm summers/sunny summer conditions (15-19°C)
- ❖ Moderate rainfall averaging 560mm ideal for wheat growing with a dry period for ripening and harvesting.

(b) Give TWO uses of Wheat. (2 mks)

- Wheat grain is used as human food
- Hay or wheat husks are used as animal feed
- Wheat flour is used for making adhesives/glue
- Wheat straw is used for making paper and straw boards
- Wheat flour is used in the Baking industry.
- Wheat flour is used for beer brewing/distilling of alcohol.

(c) Explain FOUR climatic problems affecting wheat farming in Canada. (8 mks)

- Low temperatures/long cold winters/Hailstones/Summer heat waves destroy wheat delay wheat cultivation lowering both yield and quality.
- Frost destroys wheat leading to low yields
- Strong winds cause soil erosion especially after ploughing resulting in loss of fertile soils
- Low/unreliable rainfalls as well as drought leads to crop failure and low yields.

(d) Compare wheat farming in Kenya and Canada under the following sub-headings:-

(i) Storage. (2 mks)

- ❖ In Kenya wheat on transit is stored in sacks/bags while in Canada wheat on transit is stored in huge grain elevators/special car boxes
- ❖ Both countries have silos for storage of wheat.

(ii) Research (2 mks)

- ❖ In Kenya little research is undertaken on wheat farming while in Canada there is advanced research on wheat farming which produces high yielding resistant seeds and control of pests and diseases.

(iii) Marketing (2 mks)

- ❖ In Canada wheat is for both local and export markets while in Kenya wheat is for the local market.

(e) Your Geography class intends to carry out a field study on wheat harvesting in the nearby farm.

(i) Outline TWO problems that face wheat harvesting you are likely to find out.

- ❖ Shortage of harvesting machinery (2 mks)
- ❖ Rainy conditions that destroy wheat

- ❖ High cost of hiring machinery
- ❖ Spillage of wheat grains during harvesting
- ❖ Breakdown of harvesting machines causing delays in harvesting.

(ii) State FOUR limitations of using interviewing method to collect data. (4 mks)

- ❖ Respondents may give false/inaccurate information
- ❖ It is time consuming
- ❖ Some respondents may be hostile/unco-operative/unfriendly
- ❖ Language barriers may hinder gathering of information
- ❖ Illiteracy may also be a problem if the interviews were written.

9. (a) (i) Name TWO types of fishing. (2 mks)

- ❖ Pelagic
- ❖ Demersal
- ❖ Fresh water
- ❖ Inshore

(ii) State THREE reasons why marine fisheries are under developed in Kenya. (3 mks)

- ❖ The continental shelf is narrow
- ❖ The coastline is fairly straight and lies few indentations
- ❖ The waterse are relatively warm for the growth of plantations
- ❖ The fishermen have inadequate capital to purchase modern fishing equipment
- ❖ Fishermen have inadequate skills.
- ❖ There is low demand for marine fish locally
- ❖ There is limited market due to competitors from the developed countries.

(iii) Identify FOUR solutions to the problems facing the fishing industry in Kenya. (4 mks)

- ❖ The government should encourage the development of cooperatives to enable the fishermen to market t their fish
- ❖ Roads leading to the freshwater lake should be developed trouble to enable fish to reach the market fist.
- ❖ The government and local financial institutions should make funds available for fishermen through offering loans to assist them purchase fishing equipment
- ❖ Legislation against dumping should be enforced so that pollution of fisheries can be reduced/treatment of industrial effluents before releasing them into the rivers and lakes
- ❖ Licensing of fishermen by the government can assist in monitoring the number of fishermen hence reducing overfishing.

(b) (i) Give TWO modern methods of fish preservation. (2 mks)

- ❖ Canning
- ❖ Refrigeration

(ii) Describe the basket method of fishing. (5 mks)

- ❖ The basket is funnel shaped to allow entry for fish
- ❖ The basket is lowered in water with the mouth facing downstream in a river/in a la ke the basket is placed facing any direction

- ❖ At the mouth of the basket there is a valve which restricts the outward movement or escape of fish once inside the basket
- ❖ The basket is held in place by rope/stones/sticks to prevent it from being swept downstream
- ❖ It is left in the water for some time after which the fish are removed.

(c) (i) Name **THREE** counties in the North West Atlantic fishing ground. (3 mks)

- ❖ Mexico
- ❖ USA
- ❖ Canada

(ii) Compare fishing in Kenya and Japan under the following subheadings:

- **Continental shelf** (2 mks)

- ❖ Kenya has a deep narrow continental shelf discouraging the growth of planktons while Japan has broad shallow and extensive continental shelf favoring the growth of planktons

- **Coastline** (2 mks)

- ❖ Kenya has an almost straight/regular coastline discouraging the breeding of fish while Japan has an irregular/indented coastline encouraging the breeding of fish.

- **Ocean currents** (2 mks)

- ❖ Kenya experiences warm waters because of the warm Mozambique current thereby discouraging the survival of fish while Japan experiences cool waters caused by the meeting of cold *Oya Siwo* and warm *Kuro Siwo* currents that is ideal for the survival of fish.

10. (a) (i) Define retail trade. (2 mks)

- ❖ This is the buying of goods from wholesalers and selling to the final consumer at a profit.

(ii) Name **THREE** major imports from Europe to Kenya. (3 mks)

- ❖ Machinery
- ❖ Capital equipment
- ❖ Pharmaceutical products/medicine
- ❖ Fertilizers
- ❖ Automobiles

(b) State **FOUR** factors that influence internal trade in Kenya. (4 mks)

- ❖ **Population size:** This determines the demand of goods produced leading to expansion of trade.
- ❖ **Cultural differences:** This leads to specialization in production of goods for exchange.
- ❖ **Production of similar goods for trade by different regions:** This limits market potential while production of different goods enhances trade between communities in the country.
- ❖ **Level of development of transport network:** A well-developed transport network enhances trade as goods can be transported to far away market while a poor transport network limits trade as market potential is restricted.
- ❖ **Level of income purchasing power:** Low purchasing power of most Kenyans limits trade as market potential is restricted.

- ❖ **Security:** This encourages expansion of trading activities while insecurity discourages trade in some regions.

(c) Explain FOUR ways through which Kenya will benefit from COMESA. (4 mks)

- ❖ It has created a large market for goods produced in different countries.
- ❖ It has resulted in the availability of a variety of goods due to the free movement and removal of trade barriers.
- ❖ It has led to the establishment of a common tariff for increased social economic co-operation.
- ❖ The removal of Visa requirements has made it easier for traders to move across borders within the region.
- ❖ It has increased production and specialization in different member countries produce for trade.
- ❖ It has led to creation of employment opportunities through trading activities.

(d) Explain how the future of international trade in Kenya can be improved. (8 mks)

- ❖ Many Kenyans are employed in domestic trade such as in wholesale and retail shops and sectors dealing with foreign trade (customs).
- ❖ It's a source of revenue for the government by charging sales tax such as V.A.T. on manufactured goods sold locally and tariffs at the point of entry into the country.
- ❖ Foreign trade enables the country to earn foreign exchange which is used to import goods the country needs
- ❖ Leads to development of settlements as people move to where trading activities are carried out.
- ❖ International trade ensures availability of a wide range of goods for consumers to select from in order to satisfy their needs.
- ❖ It leads to development of industries as demand for goods increases hence more industries are set up or existing ones increase their activities so as to satisfy the increase in demand.
- ❖ Leads to development and improvement of transport infrastructure such as; roads and railways in order to enhance transportation of goods and people.
- ❖ Trade enhances specialization leading to production of high-quality goods for trade which enables the country to earn higher income.