

312/2
GEOGRAPHY
Paper 2
JANUARY 2021
Time: 2¾ hours

KASSU-JET JOINT EXAMINATION
Kenya Certificate of Secondary Education
312/2
Paper 2
GEOGRAPHY

MARKING SCHEME

SECTION A

Answer **all** the questions in this section.

1. (a) What is practical Geography? (2 marks)
- *The study of practical skills which enhance the understanding and interpretation of geographical phenomena.*
- (b) State **three** practical aspect we study in Geography. (3 marks)
- *Maps and map reading/Maps and mapwork*
 - *Photograph work*
 - *Time management*
 - *Data interpretation*
 - *Data presentation*
2. (a) Apart from marine parks, give **two** other tourist attractions at the Kenyan coast. (2 marks)
- *Sandy beaches/cliffs/caves/Indian ocean*
 - *Coral reefs*
 - *Mangrove swamps*
 - *Marine life*
 - *Warm/sunny climate of the coast*
 - *Historical sites e.g. fort Jesus*
 - *Traditional culture of the people/dances/shrines/Kaya forests/craft*

- *Water sport/beach sports*

(b) State **three** reasons why national parks have been established in Kenya. (3 marks)

- *To preserve Kenya's natural beauty.*
- *To conserve wildlife/flora and fauna*
- *To attract tourists*
- *To provide opportunities for education and research*
- *To protect our wildlife for posterity*

3. (a) Name **two** towns in Kenya where motor vehicle assembly plants are found. (2 marks)

- *Nairobi*
- *Thika*
- *Mombasa*

(b) State **three** ways in which Kenya has benefited from assembling of motor vehicles locally. (3 marks)

- *Creation of employment*
- *Earns Kenya foreign exchange*
- *Helps Kenya save on foreign exchange.*
- *Has led to development of skills among Kenyans.*
- *Enabled Kenya to develop trade links with other neighbours.*
- *Stimulates development of other related industries e.g. paint*
- *Led to investment of capital by rich companies.*

4. (a) Identify **two** indigenous beef cattle breeds raised in Kenya. (2 marks)

- *Boran*
- *Zebu*
- *Sahiwal*

(b) Give **three** factors which favour beef farming in the Nyika plateau. (3 marks)

- *The presence of watering points/Lorian swamps/some permanent rivers to provide water for animals*
- *There are large tracts of land/sparsely populated areas with natural grass which provide food for animals.*
- *The local people keep livestock e.g their occupation provide the basis for beef farming.*
- *The semi-arid condition/Low Savanna grassland in the region favour beef cattle keeping.*

- *The area is free from animal pests especially the tsetse flies.*
- *Gentle slopes/ relatively flat terrain for easier movement of animals*

5. (a) Differentiate between exports and imports. (2 marks)

- *Exports are goods that a country sells to other countries while imports are good that a country procures from other countries.*

(b) State **three** factors which influence external trade in Kenya. (3 marks)

- *Government policy/services*
- *Differences/similarities in goods produced*
- *Availability of aids to trade*
- *Demand for goods locally*
- *Availability of transport/communication network*
- *The purchasing power of the people/ availability of capital.*
- *The level of industrialization.*
- *Political stability/relationship of trading partners.*
- *International trade agreements/restrictions.*
- *Varying exchange rates*

SECTION B

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

6. Study the photograph below and use it to answer question (a).



- (a) (i) What evidence in the photograph shows that this is a ground general view type of photograph? (2 marks)
- *The focus is on many objects*
 - *The photograph captures the broad view of the area*
 - *The objects become progressively smaller towards the back ground*
- (ii) Name the type of pollution shown on the photograph. (1 mark)
- *Water pollution*
- (iii) Draw a rectangle measuring 15cm by 10cm to represent the area on the photograph. On it, sketch and label the main features shown on the photograph. (5 marks)



- (iv) State **three** causes of this type of pollution. (3 marks)
- *Oil leaks from ships/trucks*
 - *Dumping of solid waste into water courses*
 - *Surface run off/soil erosion into water depositing it.*
 - *Disposing of raw sewages into rivers/lakes*
 - *Washing/bathing/watering animals in rivers/lakes*
 - *Washing away into rivers and lakes chemicals/fertilizers/pesticides/ insecticides*
 - *Industrial effluent when discharged into rivers/lakes*
- (v) Explain **three** measures that may be taken to combat this type of pollution. (6 marks)
- *Recycling wastes in order to reduce the industrial waste turn over.*

- *Industrial waste such as effluents should be treated before releasing them to water to reduce their negative impact.*
- *Biological control of weeds should be encouraged instead of using weed killer chemical*
- *Enforce environmental laws on the use of improved technology for industrial efficiency.*

(b) (i) Name **two** rivers in Kenya to the west of the rift valley which cause large scale flooding. (2 marks)

- *River Nyando*
- *River Nzoia*
- *River Yala*

(ii) Explain factors that lead to frequent flooding in the lake region of Kenya. (6 marks)

- *The land in the region is low lying which cause rain water to spread over a wide area.*
- *The adjacent highlands receive heavy rainfall which releases large volumes of water resulting to rivers overflowing their banks.*
- *Silt has filled the river beds making them shallow spilling their water over the banks.*
- *Some areas have black cotton soils which are non-porous which when it soaks up allows water to flow and spread on the surface.*
- *The heavy rainfall received in some of the lake regions cause the lake levels to rise thus flooding the adjacent lowlands.*
- *Deforestation in the catchment areas reduces water infiltration and encourage surface run-off which ends up in rives which makes them burst their banks.*
- *Cultivation along the river banks in most rivers have blocked the river channels and cause it to be shallow thus spilling their water over the land.*

7. (a) (i) Define the term fisheries. (2 marks)

- *These are water bodies where fish are found or reared and exploited for food or commercial purposes.*

(ii) Name **two** types of inland fisheries in East Africa. (2 marks)

- *Fresh water Lakes*
- *Rives*
- *Fish ponds*
- *Man-made reservoirs*

(iii) State **four** measures that the government of Kenya has taken to conserve fisheries. (4 marks)

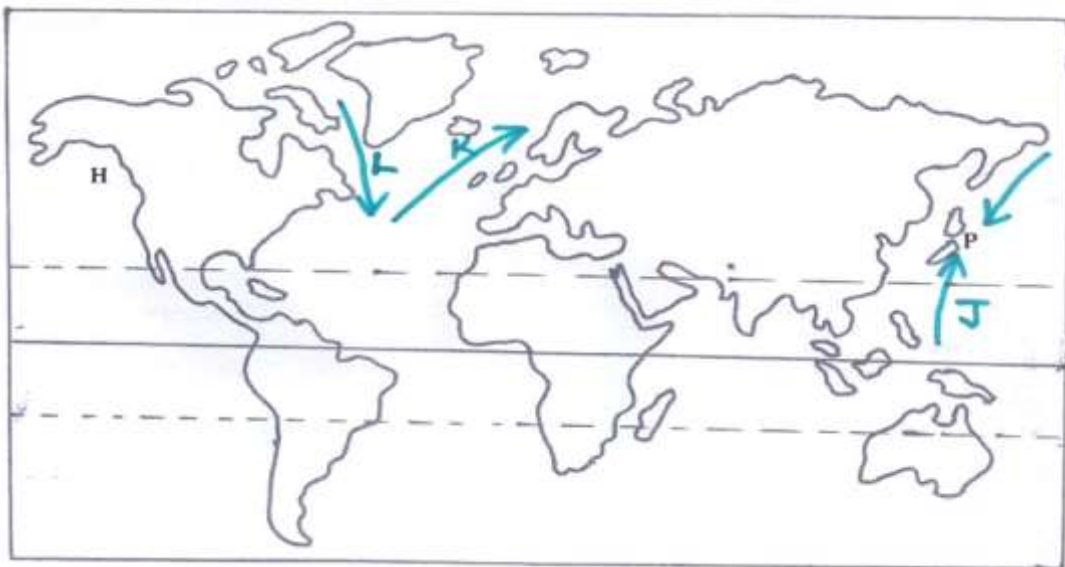
- *Through restocking the overfished areas by breeding fingerlings in fish farms.*
- *Through standardizing the mesh size of nets used to ensure only mature fish are caught.*
- *Through licensing commercial fishermen to control their numbers to help control overfishing.*
- *Through restricting fishing to specific seasons to allow breeding and maturing of fish*
- *Through legislation to restrict disposal of untreated and solid wastes into the ocean and lakes in order to control water pollution and ensure survival of fish.*
- *Through discouraging entry of foreign fishermen in Kenya's territorial waters in the Indian oceans to avoid overfishing. (Usually 320km)*
- *Through enforcing international conventions to protect the endangered species of fish.*
- *Through encouraging fish farming to ensure sufficient supply of fish from other sources other than the natural fisheries.*

(b) Describe how basket fishing method is used to catch fish. (6 marks)

- *It is used in shallow lake waters, ponds and rivers.*
- *The basket is funnel shaped to allow easy entry of fish*
- *The mouth of the basket has a no-return valve which prevents outward escape /movement of fish once inside the basket.*
- *A bait is put in the basket to attract fish.*
- *The basket is then lowered in shallow water with the mouth facing the direction from which water is flowing.*

- *The basket is held in position with ropes o/r sticks/stones to prevent it from being swept downstream.*
- *It is left in that position for some time/overnight and then removed for emptying of fish.*

(c) The following map shows the world distribution of the major fishing grounds. Study and use it to answer the questions that follow.



(i) Name **two** types of fish species found in the fishing ground marked **P**.
(2 marks)

- *Salmon*
- *Tuna*
- *Bonito*
- *Sardine*
- *Cod*
- *Mackerel*

(ii) Identify the ocean currents labelled **J**, **K** and **L**.
(3 marks)

- J - *Labrador cold ocean current*
- K - *Warm North Atlantic drift current*
- L - *Cold Oya-shio current*

- (iii) Explain **three** physical factors that favour large scale fishing in the fishing ground marked **H**. (6 marks)
- *Presence of Warm North Pacific current that raises the low temperature of the water making it ideal for the growth of the planktons.*
 - *Presence of warm north pacific current that washes the area making the water ice free thus enabling fishing to take place throughout the year.*
 - *Presence of a highly indented coastline which forms suitable breeding sites for fish and good landing ports.*
 - *Presence of a highly rugged mountainous landscape under dense forest cover which discourages agriculture activities thus people engage in fishing as an alternative economic activity.*

8. (a) (i) Identify the type of energy from the following sources of energy.

- Tides (1 mark)
 - *Tidal/wave energy*
- Uranium (1 mark)
 - *Nuclear energy*

(ii) What is Geothermal energy? (2 marks)

- *This is energy derived from steam from the hot rocks in the interior of the earth.*

(iii) State **three** factors that hinder expansion of geothermal production in Kenya. (3 marks)

- *Inadequate technology to ensure exploitation*
- *Limited number of suitable sites for generation and exploration*
- *Inadequate capital for investment*
- *Scarcity of skilled labour hence reliance on expatriates who are costly.*
- *The danger of land subsidence*

(b) Explain **three** problems that face the use of firewood as a source of energy in Kenya. (6 marks)

- *Use of firewood produces a lot of smoke which pollutes the environment*
- *Carbon dioxide from the wood fuel contributes to global warming.*
- *Leads to destruction and degradation of environment due to deforestation.*
- *Bulky and costly to transport*
- *A lot of wood is required because of low energy output*
- *Require a big storage area compared to other sources of energy*
- *Wood fuel is dirty due to soot and smoke*

(c) (i) State **four** physical factors that favoured the location of the Owen Falls Hydro-electric Power project in Uganda. (4 marks)

- *The Owen falls provided a natural waterfall/head waters which made it easy to construct a power generating plant.*
- *Narrow channel /gorge on the Nile River provided a suitable site for the power station reducing the cost of construction.*
- *Presence of L. Victoria provided a large reservoir for water.*
- *Abundant and reliable/constant supply of water for the generation of power throughout the year.*
- *Strong basement rock system which provided a firm foundation for the dam.*

(ii) Explain **two** problems the government of Kenya faces in her effort to develop H. E. P stations. (4 marks)

- *Fluctuating water levels in the rivers during drought lead to lower production hence power rationing.*
- *Displacement of people due to creation of the reservoir has led to high cost of compensation.*
- *Limited sites for both HEP and Geothermal production.*
- *The quantity of water downstream can greatly reduce due to the dam, especially during drought.*

(d) Form Four students carried out a field study in Kamburu H.E.P plant.

- (i) State **two** objectives for their study. (2 marks)
- *To find out the factors that influenced the location of the plant/station.*
 - *To find out the amount of energy generated daily from the station.*
 - *To identify/find out/establish the problems facing the station.*
 - *To investigate/determine the uses of the energy produced.*
- (ii) Give **two** reasons why they needed a working schedule. (2 marks)
- *To ensure proper time management and reduce time wastage.*
 - *To ensure important areas are covered adequately.*
 - *Ensures that one remains within the scope of the study.*
 - *Help to estimate the time required for the study.*
 - *Provides a basis for evaluating the fieldwork while it is in progress.*

9. (a) Differentiate between transport and communication? (2 marks)
- *Transport is the movement of goods and people from one place to another while communication is the transmission of information from one person to another.*

- (b) Explain how the following factors influence development of transport in Kenya.

- (i) Government policy (2 marks)
- *The government and political leaders make decisions of developing transport and communication network in an area.*
 - *The government plans and gives finance to construct such networks and maintain the existing transport infrastructure.*
 - *Government may cooperate with development partners to finance construction of transport and communication networks in a country.*
 - *Government can agree on joint ventures to build transport lines across boundaries to join different countries.*
- (ii) Relief (2 marks)
- *Rugged terrain acts as a barrier to construction of roads and railways.*
 - *It is easy and cheaper to construct roads, railway lines and airports on gently sloping areas.*
 - *Railways and roads are constructed around high mountains which makes them to take longer distance hence expensive.*
 - *Some roads are constructed parallel to the steep escarpments.*

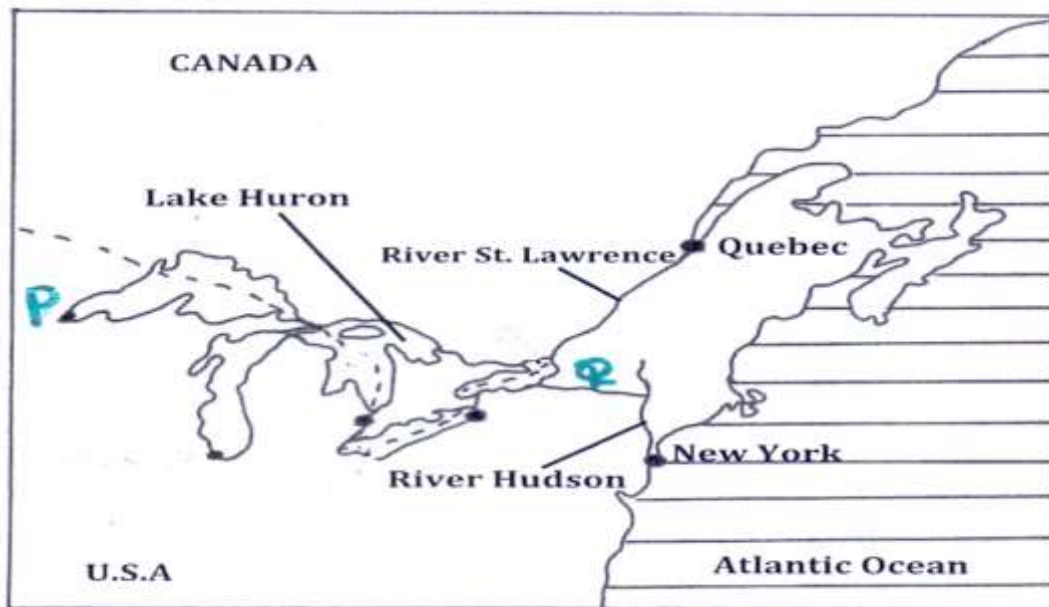
(c) (i) Identify **three** conditions of roads in Kenya that cause occurrence of accidents. (3 marks)

- *Some roads have pot-holes which drivers may hit causing tire bursts hence loss of control of the vehicle leading to an accident.*
- *Some roads have steep gradient and sharp bends where drivers may lose vehicle control and veer off the road.*
- *Some roads have muddy and slippery surfaces during rainy season which may cause vehicles to collide.*
- *Some roads are unmarked and have unclear road signs which make drivers to lose vehicle control.*
- *Some roads have dusty conditions which cause reduced visibility leading to accidents.*
- *Some roads have narrow bridges which make vehicles crash head on.*
- *Some roads have substandard smooth surfaces where vehicles may skid and overturn.*
- *Absence of sidewalks for pedestrians make pedestrians walk on the road causing accidents.*

(ii) State **three** measures taken by the government of Kenya to reduce road accidents. (3 marks)

- *Introduction of speed governors on public service vehicles to control speed at 80km/hr.*
- *Legislation to prohibit overloading of public service vehicles with passengers.*
- *Construction of bumps to control speed in case of many passengers crossing busy road sections.*
- *Carrying out road safety education through mass media to create awareness on road safety precautions.*
- *Intensified police checks to track down on road un-worthy vehicles and traffic offenders.*
- *Repair and maintenance of roads to get rid of pot-holes.*
- *Strict regulations on issuing driving licenses to ensure drivers are competent.*
- *Use of road safety reflectors to warn other road users in case of a vehicle breakdown on the road.*
- *Installation of road signs to warn on bumps, sharp corners, steep road sections and traffic lights to control traffic flow in busy urban roads.*
- *Construction of flyovers and zebra-crossing across busy roads to reduce number of pedestrians crossing busy roads.*
- *Construction of sidewalks to reduce number of pedestrians on roads.*
- *Pedestrians and cyclists using roads at night advised to wear bright clothes to avoid being hit by vehicles.*

- (d) (i) Name **two** major railway lines in East Africa. (2 marks)
- *Kenya-Uganda railway line.*
 - *Tanzam/TAZARA railway line*
- (ii) State **three** reasons why road transport is more developed than railway transport in East Africa. (3 marks)
- *Roads are more flexible and easily constructed to serve from door to door unlike railways that serve specific areas.*
 - *Roads are constructed on different grades unlike railways which are constructed on specific gauges.*
 - *Roads can be used by a wide range of transport agents unlike railways which are used by a single type of train.*
 - *Roads are cheaper to construct and requires less capital unlike railways which are expensive as they require iron and steel.*
 - *Roads carry all quantities of goods which promote small scale business while railways only carry bulky goods thus more roads are constructed as they are in great demand.*
 - *Roads are faster means of transport as opposed to the she slow moving railway transport in most of Africa.*
 - *Roads require less skills in construction unlike railway which require advanced skills to construct specific gauges.*
 - *Roads are wide spread as they can be constructed on varied terrain unlike railways which can only be constructed on relatively flat land.*
- (e) Study the map of the great lakes and the St, Lawrence Sea way provided and use it to answer the questions that follow.



(i) Name the port marked **P** and the canal marked **Q**. (2 marks)

P - Duluth

Q - New-York State Barge Canal.

(ii) Explain **three** ways in which the sea route has contributed to industrial growth in the region. (6 marks)

- *It has enabled easy transportation of raw materials to the industries and finished products to the markets.*
- *It has provided cheap water transport which reduced the transportation cost of transporting bulky products.*
- *Dams constructed provide hydro-electric power for industrial use.*
- *It has led to development of ports and towns which provide cheap labour and a ready market for the industrial goods produced.*
- *Water reservoirs provide water for industrial use.*
- *It has increased the volume of trade on industrial products.*

10. (a) (i) What is population? (2 marks)

- *Is the total number of people living/inhabiting a geographically defined area.*

(ii) Give **three** reasons why it is important for the government to conduct a population census. (3 marks)

- *To determine the total number of people in the country*
- *To help in distribution of resources*
- *To make estimates of population growth*
- *For economic planning and policy making*
- *To identify death and birth rate or fertility and mortality rate hence determine growth rate.*
- *To help create new administration units or boundaries*
- *To help the government to generate employment*
- *To establish the age sex composition and dependency ratio*
- *To help create new administration units or boundaries*

(b) Explain how the following physical factors has influenced population distribution in Kenya.

(i) Climate (2 marks)

- *Areas experiencing high rainfall throughout the year are densely populated because they are suitable for arable farming/support variety of crops.*
- *Hot and dry areas discourage arable farming hence have fewer people/ low population densities.*
- *Very cold and extremely hot areas have low population densities because the low temperatures limit growth of crops, and may be harsh for human habitation.*

(ii) Pests and diseases. (2 marks)

- *Areas infested with pests like tsetse flies and prevalent diseases are sparsely populated due to unhealthy conditions.*
- *Areas that are free from pests and diseases attract many people leading to dense population.*

(c) (i) Define the term fertility. (2 marks)

- *Fertility is the ability of a woman to conceive and give birth to a live child.*

(ii) Give **four** factors that influence fertility. (4 marks)

- *Level of education*
- *Family planning or use of birth control or contraceptives.*
- *Medical care or hygiene or health facilities*

- *Nutrition or diet for healthy bodies*
- *Cultural beliefs e.g early marriages, naming relatives, sex preference*
- *Religious practices which limit use of contraceptives*

(iii) State **four** causes of intra-urban migration. (4 marks)

- *Search of better housing*
- *Search cheaper housing*
- *Nearness to places of work/ reduce cost transport*
- *Availability of social facilities/amenities e.g schools, hospitals/ recreational facilities, electricity, water etc.*
- *Insecurity in some parts of town force people to move to other estates/ parts.*
- *Cultural/religious affinity attracts some people to move to some parts of towns.*

(d) Explain **three** problems that result from high population growth rate in Kenya. (6 marks)

- *High dependency ratio results into little savings by the working group leading to low investments and low living standards.*
- *High unemployment rate leading to low living standards as the rate of population growth is higher than the job opportunities.*
- *Increased poverty and large number of unemployed may lead to high crime rate and social evils.*
- *High demand for social amenities or inadequate social amenities leads to strain and congestion in schools, hospitals, and housing and transport facilities.*
- *High demand for agricultural land leads to land fragmentation, landlessness and destruction of forests*
- *Increased demand for food has led to food shortage*
- *Slow economic growth rate as a lot of revenue is used to meet the demands of large population instead of investing in income generating projects.*
- *Rural-urban migrations resulting to congestion and social evils in urban centers.*