**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.*

 *- Deforestration 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 fingerings 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 convections 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 beingswept 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 were drivers may lose vehicle control and veer off the road.*
* *Some rods 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 maintainace 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 comers, 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 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.*