**THE CaSPA DIOCESE EXAMS**

**THE NOVEMBER 2021 KCSE**

**GEOGRAPHY PAPER TWO – 312/2**

**MARKING SCHEME – GEOGRAPHY 312/2**

**TEN (10) QUESTIONS**

**SECTION A = 25 MARKS**

**ALL QUESTIONS IN THIS SECTION TO BE ANSWERED.**

1. (a) Define Ecotourism
* Ecotourism is the development and management of tourism while conserving the environment/enjoying what nature provides while protecting it.
* The enjoyment of watching the natural environment while protecting it at the same time by the tourists.

**Any 1x2 = 2 Marks Only**

 (b) State two reasons why domestic tourism is encouraged in Kenya.

* To make use of tourist facilities during the low tourist seasons.
* In order for Kenyans to be exposed and know more about their own country.
* To expose Kenyans to a wider variety of recreational facilities.
* To create employment to the people.
* To generate income to the people and the government.

**Any 2x1 = 2 Marks Only**

1. (a) State three physical features that favoured the development of the seven forks hydro-electric power scheme.
* The presence of a hard basement rock.
* The presence of large volume of water, from River Tana.
* The presence of water falls/rapids/steep gradient.
* The presence of a narrow steep sided river valley/deep gorges.
* The regular flow of river Tana/The permanent/constant River Tana.

**Any 3x1 = 3 Marks Only**

 (b) State two human problems facing hydro-electric power projects development in

 Kenya.

* The high cost of maintenance of machines.
* The inadequate capital to expand the projects.
* The high cost of transmission of power from remote areas.
* The high rate of corruption
* Drastic technological changes

**Any 2x1 = 2 Marks Only**

1. (a) Identify the minerals mined in the areas marked
* W – Fluorspar (1x1 = 1 Mark)
* X – Gold (1x1 = 1 Mark)
* Y – Diamonds (1x1 = 1 Mark)
* Z – Copper (1x1 = 1 Mark)

**Total = 4 Marks Only**

 (b) State two problems facing gold mining in South Africa.

* The hard rocks to be broken.
* The collapse of the mines.
* The low ventilation standards deep underground.
* The dusty conditions/silica dust.
* The high frequency of strikes by gold miners.
* The flooding of the gold mines.
* The high temperature conditions deep underground.
* The great depth of the mines.
* The drop in gold quality.

**Any 2x1 = 2 Marks Only.**

 (c) State two factors which influence the mode of occurrence of minerals.

* Vulcanicity process.
* Metamorphism process of rocks.
* Sedimentation of materials.
* Evaporation of water.
* Weathering of rocks.
* Erosion of mineral particles

**Any 2x1 = 2 Marks Only**

1. (a) State two features of the cottage industry in India
* Relies on simple equipment/machines owned by families/groups/individuals.
* Uses locally available raw materials.
* Produces goods mainly for local markets.
* Wide spread/ubiquitous in the country.
* Embraced advanced technology in operations.
* Operated from homes or small workshops.
* Middlemen aid in marketing.

**Any 2x1 = 2 Marks Only.**

 (b) Identify two human factors which led to the development of the iron and steel

 industry in the Ruhr Region of Germany in the 19th century.

* Large capital/entrepreneurship from the Krupp family/The Ruhr Kohle companies.
* Large external and internal market.
* Large supply of hydro electric power.
* The long historical background in metals workings from the local people /local craftsmen.
* The skilled labourers from the local villages.

**Any 2x1 = 2 Marks Only**

1. (a) Name the
2. The Lake marked L
* L- Lake superior

**1x1 = 1 Mark Only**

1. The waterfall marked T
* T- Niagara Falls
* **1x1 = 1 Mark Only**
1. The port marked N
* N – Quebec Port

**1x1 = 1 Mark Only**

 (b) Give two activities which were carried out by the St. Lawrence seaway project

 between 1954 and 1959.

* The construction of canals.
* The establishment of locks along the river channel.
* The development of dams.
* The removing of rock shoals.

**Any 2x1 = 2 Marks Only.**

**SECTION B = 75 MARKS**

**QUESTION 6 AND ANY OTHER TWO QUESTIONS TO BE ANSWERED.**

1. (a) (i) Use the base map provided to present the above population distribution data.
* The scale is 1 dot represents 5000 people.

Calculations

|  |  |  |
| --- | --- | --- |
| **Sub-County** | **Population Size** | **Total No. of Dots**  |
| K | 650005000 | 13 |
| L | 350005000 | 11 |
| M | 400005000 | 8 |
| N | 350005000 | 7 |

**A DOT MAP SHOWING POPULATION DISTRIBUTION IN THE SUB COUNTIES OF COUNTY T.**

**Marks Distribution**

Calculations = 8 Marks

Dots = 4 Marks

Title = 2 Marks

Total = 14 Marks

**NB**: Examiners to indicate the dots appropriately before marking starts.

 (ii) State three disadvantages of Dot Maps in data presentation.

* They are tedious to draw for a large area/Time consuming to draw.
* They give a false impression of the real distribution of phenomena when dots are evenly spread.
* Difficult to draw many dots of a uniform size and shape.
* Difficult to place dots on the exact location of the phenomena.

**Any 3x1 = 3 Marks Only.**

 (b) State four measures which the Government of Kenya has taken to reduce infant

 mortality.

* The widespread immunization of children to control diseases.
* The provision of free medical services for children/free mosquito nets.
* The provision of parental education to ensure better care for children/breast feeding campaigns/family planning.
* Granting longer maternity leave for mothers to take care of the new born babies.
* Research on infant related diseases has been stepped up..
* Encourages the provision of homes for the orphans.
* Enhancement of the training of traditional midwives.
* Improving/increasing of medical facilities.

**Any 4x1 = 4 Marks Only.**

 (c) State four similarities between the population trends of Kenya and Sweden.

* In both countries the distribution of population is uneven.
* In both countries a low mortality rate prevails.
* In both countries population policies do prevail on population trends followed by recommendations.
* In both countries there is use of family planning methods and contraceptives geared towards controlling population growth.
* In both countries population density in urban areas is high.

**Any 4x1 = 4 Marks Only**

1. (a) (i) Differentiate land reclamation from land rehabilitation
* Land reclamation is the process by which unproductive land/wasteland is converted into farmland for crops growing /keeping animals while land rehabilitation is the process of restoring wasteland to its former productive state.
* Land reclamation is the process of creating new land from the sea/lake beds/river beds and making it available for agriculture/settlement while land rehabilitation is the process of restoring waste land to its former productive state.
* Land reclamation is the practice by which less useful land is converted into more useful land while land rehabilitation is the process of recovery/restoration of land which has been misused/destroyed through human activities.

**Any 1x2 = 2 Marks Only**

 (ii) Describe the stages of land reclamation from the sea in the Netherlands.

* Protective dykes/walls are constructed to enclose the part of the sea to be reclaimed.
* Ring canals are constructed to convey water from the land to be reclaimed into the sea.
* Pumping stations are installed to pump out sea water from the area enclosed by the dykes.
* Water is pumped out of the area enclosed by the dykes.
* Reeds are sown to use up any excess water in the area/facilitate soil desalinization process.
* Drainage ditches/pipes are cut in the land/laid down to drain water from the water table.
* The soils are treated with chemicals/flushed with fresh water to lower their salinity levels.
* The pumping out of the water from the bolders is a continuous process to prevent water accumulation in the reclaimed land.

**Any 6x1 = 6 Marks Only.**

 (b) Explain four ways in which the Zuyder Zee project economically benefits the

 Netherlands.

* Reduced degree of soil salinity which has promoted agricultural production.
* Reclaimed land which has increased agricultural land by 10% thus high horticultural production.
* The creation of Lake Ijssel which provides fresh water for domestic and industrial use.
* The road connection between the provinces of North Holland and Friesland has been significantly shortened leading to low transportation costs/great saving of transportation time.
* Reduced flooding prospects which has facilitated significant economic growth.
* More employment opportunities created leading to high standards of living of the people.

**Any 4x2 = 8 Marks Only**

 (c) (i) State four ways in which land is reclaimed in Kenya excluding irrigation.

* The drainage of swamps/marshes.
* Infilling of quarries.
* Tsetse fly control and clearing of jungles.
* Establishing forests/Afforestation.
* Cultivation of drought – resistant crops.

**Any 4x1 = 4 Marks Only**

 (ii) State five problems facing the Perkerra Irrigation Scheme.

* River Perkerra fluctuations.
* Livestock-human conflicts.
* Land ownership conflicts.
* Farmers’ financial constraints.
* High cost of farm inputs.
* High salinity levels in water during the dry periods.
* Delayed issuance of land title deeds to the farmers.

**Any 5x1 = 5 Marks Only**

1. (a) (i) Name the country marked M
* Canada

**1x1 = 1 Mark Only**

1. Explain how the two ocean currents shown on the map influence fishing in the area.
* The convergence of the cold Labrador and the warm Gulf Stream ocean currents causes upwelling of water which brings minerals for planktons closer to the surface attracting large number of fish to the area.
* The convergence of the cold Labrador and the warm Gulf Stream ocean currents modifies the temperature of the ocean water leading to fishing activities throughout the year.
* The convergence of the cold Labrador and the warm Gulf Stream ocean currents cools water which favours the survival of a wide variety of fish species making the area an important fishing ground.

**Any 2x2 = 4 Marks Only**

 (b) Explain three factors which favour commercial fishing in the area shaded on

 the map other than ocean currents.

* The area has a broad continental shelf with large quantities of fish to be harvested.
* The shallow continental shelf which is reasonably sun lit promotes massive planktons development which attract large quantities of fish.
* The low temperatures in the area are suitable for fish preservation/storage of fish.
* The adjacent rugged landscape discourages agriculture compelling people to focus on fishing for economic sustainability.
* Rich deposits of land derived minerals from rivers which leads to plankton growth providing adequate fish food.
* The hinterland is densely populated thus providing ready market for fish.
* Advanced technology has resulted in highly developed ship building/fishing vessels which are equipped with modern preservation facilities thus making it possible for fishermen to carry out large scale fishing.

**Any 3x2 = 6 Marks Only.**

 (c) Explain three human reasons why fresh water fishing is more developed than marine

 fishing in East Africa.

* The demand for fresh water fish is usually high while that one of marine fish is low hence encouraging the pursuit of fresh water fish in East Africa.
* With low skills fresh water fishing is carried out conveniently in East Africa unlike marine fishing which thrives on advanced skills which are uncommon.
* With low capital outlay investment in fresh water fishing is carried out unlike marine fishing which requires high capital for investment.
* With simple/cheap equipment fresh water is carried out in East Africa unlike marine fishing which flourishes on advanced equipment usage.

**Any 3x2 = 6 Marks Only**

 (d) (i) Describe how the method is used in catching fish.

* A bag-shaped net is attached to a ship called a trawler.
* The net is cast into water by the trawler.
* The net’s mouth is kept open by otter boards/head beams.
* The upper part of the net is kept a float by corks/floats.
* Weights are used to keep the lower part of the net at the sea bed.
* The trawler drags the net along the sea bed.
* After sufficient fish have been caught, the net is hauled to the trawler to empty the fish.

**Any 5x1 = 5 Marks Only**

 (ii) List three methods used to preserve fish.

* Canning
* Freezing/Refrigeration
* Deep frying
* Salting
* Smoking

**Any 3x1 = 3 Marks Only.**

1. (a) State three physical conditions that favour coffee growing in the Central Highlands of Kenya
* The high rainfall throughout the year/1000mm – 1500 mm.
* The deep and well drained volcanic soils/loamy soils.
* The moderate/high temperature conditions.
* The gently sloping landscape.
* The highland elevation of Central Kenya/The high altitude.

**Any 3x1 = 3 Marks Only**

 (b) Describe the stages involved in coffee production from picking to marketing.

* The ripe/deep red berries are picked by hand.
* The harvested berries are carried in baskets/sacks to the factory.
* The berries are sorted out to remove the outer diseased berries.
* The different grades are weighed.
* The berries go through a machine that removes the outer covering pulp.
* The beans are fermented in tanks for sometime.
* The beans are washed and then sun dried for about a week.
* The husks are removed and the beans winnowed.
* The beans are sorted out and graded according to size and quality.
* The beans are roasted at temperatures of about 1000c.
* The beans are ground into powder ready for sale.

**Any 8x1 = 8 Marks Only**

 (c) Explain four problems facing coffee farming in Brazil

* Attack by frost which destroys the crop/leads to low yields.
* Unplanned planting which leads to overproduction/surplus production which lowers prices.
* Stiff competition from other coffee producing countries in the world which reduces Brazil’s dominance in the world coffee market.
* The fluctuation of coffee prices in the world market which sometimes leads to low prices/demoralizes the farmers.
* The soil exhaustion which leads to low coffee yields.
* Attack by coffee leaf rust disease which destroy the crop/reduces production yields
* Attack by coffee leaf miner/coffee berry borer pests which destroy the crop/ reduces production yields.

**Any 4x2 = 8 Marks Only**

 (d) Your Geography class carried out a field study on a coffee farm.

 (i) State four methods the class may have used to collect data

* Administering questionnaires.
* Taking photographs/videos.
* Content analysis.
* Oral interviewing
* Observation of phenomena.
* Taking measurements

**Any 4x1 = 4 Marks Only**

(ii) During the field study, the class collected data on quantities of coffee produced from the farm in the last five years.

State two methods that the class may have used to present the data.

* Drawing charts.
* Drawing tables.
* Drawing graphs.

**Any 2x1 = 2 Marks Only**

1. (a) (i) Apart from water and air pollution, name two other types of pollution.
* Land pollution.
* Soil pollution.
* Noise/Sound pollution.
* Thermal pollution.
* Radioactive contamination.

**Any 2x1 = 2 Marks Only**

1. Identify three ways in which water is polluted.
* Discharge of industrial waste/oil spillage/radioactive waste into water bodies.
* Disposal of domestic waste into water bodies.
* Discharge of agricultural chemicals into rivers/lakes by rain water.
* Discharge of raw sewage into water bodies.
* Natural causes such as soil erosion.
* Abuse/Dirtying of water bodies by human beings.

**Any 3x1 = 3 Marks Only**

1. Explain three effects of air pollution on the environment.
* Gases emitted from some factories contain substances which corrode roofs of houses and metal structures.
* Some gases from factories contain substances which dissolve in water to form acid rain which destroys plants/kill animals.
* Inhalation of smoke and soot particles/bad smell leads to discomfort/irritation of the respiratory system/discolouring of vegetables/buildings.
* Gases emitted from factories may contain poisonous substances which can lead to poor health.

**Any 3x2 = 6 Marks Only.**

 (b) (i) Explain three factors that lead to frequent flooding in the Lake Region of Kenya.

* Most of the land is low lying which causes rain water to spread over a wide area.
* The adjacent highlands receive torrential rainfall which releases large volumes of water resulting to rivers overflowing their banks.
* The rivers are in their old stage thus they have wide flood plains which allows water to spread over large areas.
* The area has black cotton soil which is non porous and when it soaks up allows water to flow and spread on the surface.
* The high rainfall received in the area is discharged into Lake Victoria making its level to rise thus flooding the adjacent lowlands.

**Any 3x2 = 6 Marks Only.**

1. Explain two ways through which floods are controlled in the Lake Region of Kenya.
* By diverting/redirecting river tributaries to other rivers to reduce the water volume in the main rivers.
* By planting trees in the catchment areas to increase water infiltration and seepage to reduce surface run off.
* By dredging to deepen/widen the channels of rivers to make them hold excess/large volumes of water.
* By the construction of diversion channels and canals which help to straighten river meanders and restrict the flow of water within the river valleys.
* By dams construction in the upstream stages of rivers to hold excess water in order to reduce river water volume and velocity downstream.
* By dykes/levees/embankment/construction along river banks to prevent water from overflowing.

**Any 2x2 = 4 Marks Only**

(c) State four negative effects of wind as an environmental hazard in Kenya.

* Strong winds destroy trees.
* Strong winds blow off roofs of houses.
* Winds cause strong sea storms which leads to boats capsizing.
* Winds cause soil erosion.
* Winds cause air borne diseases to spread rapidly.
* Winds facilitate the spread of dangerous bush fires.
* Winds damage transport and communication systems.

**Any 4x1 = 4 Marks Only**