**GEOGRAPHY PAPER 2 MARKING SCHEME**

**DECEMBER EXAM 2021**

**SECTION A**

1. (a) What is eco – tourism? (2mks)
* **Is a form of tourism in which tourists travel to an area of interest with an aim of conserving the environment.**

(b) State any two benefits of eco-tourism to the government. (2mks)

* **Source of revenue**
* **Protects threatened wildlife**
* **increase area under forests.**
* **Creates job opportunities to the locals in remote areas.**
1. (a) State two challenges of rail transport in Kenya. (2mks)
* **Competition from other forms of transport i.e. roads or pipeline which are faster, flexible & cheaper.**
* **High cost of rail network maintenance and expansion.**
* **Inadequate servicing of rail equipment.**
* **Mismanagement of rail services leading to poor services.**

(b) State why road transport is used more than air transport in East Africa.(3mks)

* **It is cheaper than air transport/cheaper to construct.**
* **It is flexible.**
* **Provides door to door services.**
* **Readily available in many areas.**
* **Faster over short distances.**
1. (a) Name any three towns where motor vehicles assembly takes place in Kenya. (3mks)
* **Mombasa**
* **Thika**
* **Nairobi**

(b) State any three factors that led to the development of iron and steel industry in Ruhr region. (3mks)

* **Availability of large iron deposits.**
* **Availability of water from River Rhine & Rhone which provides water for the industries.**
* **Availability of abundant source of power/coal**
* **Availability of raw material / limestone/ iron ore**
* **Developed transport – network/navigable rivers/canals.**
* **Traditional industries provided skilled labour.**
* **Availability of capital/rich population/companies/gloup family**
* **Large market in central and western Europe/large population.**
1. (a)Name any three environmental hazards. (3mks)
* **Lightning**
* **Windstorms**
* **Pests and diseases.**
* **Seismic disturbances/earthquakes/ Tsunamis**
* **Volcanic eruptions.**
* **Drought/desertification.**
* **Forest & bushfires.**

(b) Give two ways in which water is polluted. (2mks)

* **Chemicals/fertilisers from farms.**
* **Oil spills from factories, garages over land/tankers.**
* **Industrial & domestic wastes.**
* **Washing of garbage/surface run off.**
1. (a) State two characteristics of market gardening in Kenya. (2mks)
* **Practiced near urban centres.**
* **Farms are small.**
* **Intensive cultivation of land.**
* **Application of manual labour.**
* **Scientific management e.g. use of fertilisers and insecticides.**
* **Application of irrigation to facilitate production.**
* **Products for local market**

**2x1 = 1**

(b) Give three factors favouring horticultural farming in Kenya. (3mks)

* **High demand both local and abroad.**
* **Investment by large companies e.g. Delmonte, Oserian, homegrown etc.**
* **Wet and hot conditions.**
* **Availability of good transport network like Nakuru – Nairobi highway/ airports**
* **Technical assistance by foreign countries e.g. Israel, Netherlands**
* **Organised marketing of crops coordinated by Horticultural crops development authority.**

**3 x 1 = 3**

**SECTION B**

1. The table below shows four main mineral exporters in Africa in 2007. Use it to answer questions.

South Africa – 300,000

Libya – 350,000

DRC – 140,000

Tanzania – 60,000

(a)(i) Draw a divided rectangle 15cm long to represent the data. (8mks)

**South Africa – 300,000**

**Libya – 350,000**

**DRC – 140,000**

**Tanzania – 60,000**

**Total - 850,000**

**Libya =** $\frac{350,000}{850,000}×15=6.18cm≈6.2$

$$S. Africa\frac{300,000}{850,000}×15=5.29cm≈5.3$$

**DRC =** $\frac{140,000}{850,000}×15=2.47cm≈2.5$

**Tanzania =** $\frac{60,000}{850,000}×15=1.06cm≈1.2cm$



(ii) State two disadvantages of using divided rectangles to represent data.

* **It is difficult to determine values of individual components at a glance.**
* **It consumes time because of calculations involved.**
* **Limited to few variables**

(iii) Name two major minerals exported by South Africa. (2mks)

* **Diamond**
* **Gold**

(b)(i) State three processes which influence the occurrence of minerals. (3mks)

* **Vulcanicity**
* **Metamorphism**
* **Weathering**
* **Erosion and sedimentation.**
* **Evaporation.**

(ii) Explain how solution method of mining is done. (6mks)

* **Is used to mine minerals that are soluble e.g. Sulphur, potash.**
* **Pipes with super heated water or steam are sunk down to the deposits.**
* **Minerals dissolve into the water which is then pumped to the surface.**
* **At the surface water is evaporated and the mineral extracted**. (6mks)

 (c) State four effects of open cast mining on the environment (4mks)

* Causes mass wasting
* Leads to destruction of bio diversity
* Leaves heaps of soil lowering aesthetic values
* Causes pollution
* Lead to land dereliction
1. Define the following terms.

(a) (i)Fertility. (2mks)

* **It’s the number of live births a woman has during her reproductive age.**

(ii) Census (2mks)

* **It is the enumeration of entire human population of an area.**

(b) State three reasons why Kenya carries out census. (3mks)

* **In order for government to obtain information on the composition of its population in terms of gender, age and regional distribution.**
* **To establish the population trends and level of mortality and fertility.**
* **Helps the government to plan for the provision of social amenities such as hospitals, schools etc.**
* **Avail employment opportunities.**
* **Make decisions on the divisions of new administrative areas.**
* **To plan for provision of servises**

(c) Explain four problems that result from high population growth in E. African Countries. (8mks)

* **High dependency ratio resulting into little savings by the working population/low investments/low living standards.**
* **High importation to meet local demands hence depleting foreign exchange.**
* **High unemployment rate since job opportunities may not increase at rate that can cope with the number of job seekers/may increase rate of crime.**
* **Increase in demand for social amenities leading to congestion in schools/hospitals/housing and transport facilities.**
* **Increase in demand of food which may lead to food shortage.**
* **Increase in demand of agricultural land causing land fragmentation/landlessness/destruction of forests.**
* **Decrease in revenue that would be used for development of income generating projects hence slow economic growth.**

(d) State any four factors leading to slow population growth rate. (4mks)

* **Tradition – Cultural practices such as period between two children.**
* **Wars leading to death.**
* **Calamities/epidemics leading to death of people.**
* **Education which results in late marriage reducing child bearing period.**
* **Use of contraceptives which regulates/reduces chances of conception.**
* **Creation of awareness about the benefits of small families/change of altitude.**
* **Modern careers especially for women leading to long separation periods between couple.**
* **Emigration of people leading to reduced numbers in the area of outgoer.**

(e) Explain three ways in which the population of Kenya is different from that of Sweden. (6mks)

* **Dependency ratio in Kenya is high and low in Sweden.**
* **Majority of the Kenyan population is in rural areas while Sweden’s majority are in urban centres.**
* **Kenyan population has a large number of young people aged below 20 years while Sweden has an aging population.**
* **Kenyan population has a lower life expectancy while Sweden has a higher life expectancy.**
* **Birth rate is high in Kenya but low in Sweden.**
* **Fertility rate is high in Kenya but low in Sweden.**
* **Population structure in Kenya has a broad base and narrows with increasing age while that of Sweden is narrow at the bottom, bulges out in the middle and arbit wide at the top.**
* **In Kenya death rate is high and low in Sweden.**
1. (a) What is the difference between pelagic fish and demersal. (2mks)
* **Pelagic fish – fish communities that live near the surface or at the shallow sea depth.**
* **Demersal fish – Fish that live close or the bottom of the sea.**

(b)(i) On the outline map of the world provided name the fishing grounds marked ABC.

**A – N.E Pacific**

**B – N.W Atlantic**

**C – N.W Pacific**

(ii) Explain four factors that make the area marked C an important fishing grounds. (8mks)

* **Cold Kamchatka and warm kurosiwo current converge on this grounds thereby creating a conducive condition for development of planktons.**
* **Rugged landscape discourage other forms of economic activities.**
* **Densely populated countries of China, Japan and Taiwan provide a ready market for the fish.**
* **Advanced technology in the area especially in Japan has encouraged the development of the fishing industry.**
* **The many islands in the North Asian Coast form good shelter for the breeding of fish.**
* **Extensive and shallow continental shelf favours the thriving of several types of plankton.**

(c)(i) List four ways in which fish from Lake Victoria is preserved. (4mks)

* **Sun – drying**
* **Frying**
* **Smoking**
* **Salting**
* **Refrigeration.**

(ii) Explain four reasons why tropical waters are not rich fishing grounds. (8mks)

* **Water is too warm for plankton growth.**
* **High temperature discourage fish preservation in absence of refrigeration.**
* **The coast of Africa & America are straight/ lacking inlets/bays which discourage fish breeding and for fishing ports.**
* **Tropical coasts have narrow continental shelves.**

(d) State to reasons why marine fishing is less developed in Kenya. (3mks)

* Regular coastline
* Warm tropical waters discourage breeding
* Territorial conflicts in the ocean
* Many fresh water fisheries
* Low market for marine fish
1. (a)(i) State the difference between land rehabilitation and land reclamation. (4mks)
* **Reclamation – is a process of making waste lands (deserts & swamps ) suitable for farming and settlement.**
* **Rehabilitation – is the process of restoring waste land to its former good conditions for human activities.**

(ii) Name any three irrigation blocks that are part of the Mwea irrigation schemes. (3mks)

* **Mwea**
* **Karaba**
* **Tebere**
* **Thiba**
* **Wamumu 3x1=3**

(b)Explain any four factors that influenced the establishment of Perkerra irrigation schemes.

* **Presence of river perkerra which provides water for irrigation.**
* **The area slopes gently allowing flow of water to the fields by gravity.**
* **Availability of soils rich in minerals enables a variety of crops to be grown.**
* **Availability of extensive land which makes large scale cultivation of crops possible.**
* **The area had sparse population hence making it easy to resettle it.**
* **The area is semi-arid therefore there was need for irrigation farming.**

(c)(i) What is a polder?

* **This is a low lying land in the Netherlands reclaimed from the sea.**

(ii) Explain any three benefits of the Zuyder Zee project. (6mks)

* **Creation of large fresh water lake in the middle of the country for domestic & industrial use – Lake Yssel.**
* **Polders have attracted towns which have led to improvement of transport routes & social amenities.**
* **The great dyke has shortened the coastline distance by a great deal/320 km**
* **The fresh water of Lake Yssel has helped in reducing the salt content of the neighbouring regions. Availing more land for grazing and farming.**
* **Tidal flooding on the coastal areas has been completely reduced after the construction of protective dykes.**
* **Reclaimed land is fertile – production of wheat, beet root etc.**
* **Reclaimed areas have been used for settlement, recreation industries and establishment of social amenities.**

(iii) Apart from irrigation and polders list two other ways of reclaiming land. (2mks)

* **Draining swamps.**
* **Tsetse fly control**
1. (a) State three physical conditions that favour coffee growing in the central highlands of Kenya. (3mks)
* **Experience high rainfall 1000 – 1500mm, well distributed rainfall per year which in ideal for coffee.**
* **The soils are deep, volcanic type, well drained.**
* **The area experience cool to warm condition/14 – 24oC throughout the year.**
* **The land has gentle slopes/undulating landscape that allow good drainage.**

(b) Name three coffee growing counties in the western region of Kenya. (2mks)

* **Bungoma**
* **Busia**
* **Vihiga**
* **Nyamira**
* **Kisii**
* **Trans-Nzoia**

(c) Describe the stages involved in coffee cultivation. (8mks)

* Land is cleared
* Land is ploughed.
* **Seedlings are raised in a nursery – where they are watered and shaded as they germinate & stay for six month.**
* **Holes are dug in the field with a space of 3 metres, apart . manure is added and watered regularly.**
* **Seedlings are then transplanted in the holes in the field.**
* **Seedlings are sheltered from strong sunlight by trees artificial shades.**
* **The seedlings are also mulched to conserve moisture.**
* **The plant is pruned, weeded, sprayed and manured regularly.**
* **The coffee matures at about 5 years.**
* **Coffee berries are picked by hand.**

(d)(i) Compare coffee growing in Kenya and Brazil under the following sub-heading.

Coffee Growing areas.

* **In Brazil coffee is grown at lower altitudes upto 900m/ on gently rolling Brazilian plateaus while in Kenya is mainly grown in the highlands.**

Soil

* **In Brazil it is grown in deep porous/tera rossa soils while in Kenya in deep volcanic soils.**

Labour

* **In Kenya work is done by family members while in Brazil it is done by tenants.**

**3x2 = 6**

e (i) State any three problems facing coffee farmers in Kenya. (3mks)

* **Pests and diseases such as black coffee thrip, red spider mites, weevils and beetles.**
* **Hailstone which lower the quality and the quantity of the berries.**
* **Fluctuation of world market prices.**
* **Inadequate rainfall in times of prolonged drought.**
* **Labour shortage.**
* **Soil exhaustion**

(ii) Name the two coffee varieties in Kenya.

* **Arabica**
* **Robusta**
* **Ruiru II**