**FORM FOUR GEOGRAPHY**

**MARKING SCHEME**

1. (a) Give three economic factors that affect agriculture (3marks)
* ***operation cost***
* ***Marketing expenses***
* ***Price fluctuations***

 (b) State three physical factors that favour coffee farming in Brazil (3 marks)

* ***South east Brazil receives moderate to high temperature between 140c and 260c which favours coffee growing.***
* ***The Brazilian plateau receives high annual rainfall of about 1500m which supports coffee growing.***
* ***The Brazilian plateau raises between 300 and 915 m but receive high rainfall.***
* ***South east Brazil has deep well drained Terra Rosa soil which is rich in potash and humus.***
* ***Occurrence of a dry season between May and September which allows ripening and harvesting of coffee.***
* ***Occurrence of gently sloping land /undulating land within the Brazilian plateau***.

 (c) Explain four differences between coffee farming Kenya and coffee farming in Brazil

* ***In Kenya, most of the coffee is grown by small scale farmers whereas in brazil ,most of the coffee is produced in large estates called fazendas***
* ***In Kenya the main climatic hazard affecting coffee trees is drought while in Brazil, the main climatic hazard is frost.***
* ***In Kenya, small scale coffee farmers market their coffee through co-operatives while in Brazil, marketing is done by companies.***
* ***In Kenya, coffee yield per hectare is high while in Brazil coffee yield per hectare is low to soil exhaustion.***
* ***In Kenya, coffee is mainly grown in the highlands while in Brazil, coffee is grown in the plateau.***
* ***d. it is practiced in the mountains of***

***i)Norway***

***ii)Italy***

***iii)Switzerland***

 ***iv)Britain***

***v)U.S.A***

2.

1. What are choropleth maps? (2marks)
* ***A choropleth map is a statistical map which shows the relationship between a given quantity of items and a given area of land.***
1. State three disadvantages of using dot maps to present statistical data (3marks)
* ***Drawing dot maps is tedious if large areas are to be covered***
* ***It is difficult to draw as all dots have to be uniform in shape and size***
* ***Small area with dense population may cause dots to merge/overlap***
* ***Even distribution of dots gives a false impression of even distribution of population in an area.***
* ***The numbers represented by a dot are not the same numbers that would be found at the exact place within the area.***

3. (a) Differentiate between land reclamation and land rehabilitation (2marks)

* ***Land reclamation is the process of converting a waste land into a useful land for agriculture and settlement whereas land rehabilitation the process of restoring a waste land to its former productive state***

 (b) Outline four methods used in land rehabilitation (4marks)

* ***Afforestation and refforestation***
* ***Planting cover crops and grass strips***
* ***Practicing bush following***
* ***Practicing mulching***
* ***Building bunds and gabions across slopes***
* ***Adding plant and animal manure***
* ***Treating acidic soils by adding lime.***
* ***Construction of dams and wiers to control floods***
* ***Practicing controlled grazing***

(c) State four objectives of reclaiming parts of Yala-Bunyala (4 marks)

* ***To free the area insect pests***
* ***To provide land for settlement and agriculture***
* ***To reduce flooding and its associated hazards***
* ***To develop the remote area***

4.

1. Name two rivers that provide irrigation water for Mwea -Tebere Irrigation Scheme
* ***River Thiba***
* ***River Nyamindi***
* ***River Murubara*** (2marks)
1. List three blocks that form Mwea Irrigation Scheme (3 marks)
* ***Mwea***
* ***Tebere***
* ***Karaba***
* ***Wamumu***
* ***Thiba***
1. Explain four physical problems facing irrigation farming in Kenya (3marks)
* ***Hot and most conditions promote the breeding of various pests which attack irrigated crops thus leading to low yields***
* ***Fluctuations in the volume of river water during the dry seasons reduces the capacity to irrigate hence under –utilization***
* ***Situation of canals supplying irrigation water interrupts flow of water to farms as dredging is expensive.***
* ***Flooding of fields during basin irrigation may result in leaching of nutrients and soil erosion hence low yields.***
* ***Outbreak of crop diseases due to hot humid conditions at times destroys crops leading to losses.***
* ***Excess amount of water in the fields may ruin crops if the field are too flooded***
1. Explain four benefits of the zuyder zee project in the motherlands (8marks)
* ***Creation of fresh water are called lake Ijssel which provides water for irrigation, domestic and industrial use.***
* ***Sea walls helped prevent flooding of water in low lying areas during strong tides.***
* ***The project increased arable land for agriculture thus boasting food production.***
* ***Road connection between northern Holland and Friesland Island was shortened and improved.***
* ***The sea walls and ring canals are key tourist attraction features for people from all over the world.***