**CASPA JOINT EVALUATION**

**Kenya Certificate of Secondary Education**

**Geography (312/2)**

**Paper Two**

**Form 4**

**Marking Scheme**

**SECTION A (25 marks)**

**Answer All the Questions in this Section**

1.a) ***Define the term mining.*** (2 marks)

 Mining is the process of extracting mineral substance from the earth crust for commercial purposes

 b) State three forms in which minerals occur. (3 marks)

 Beds and seams/layers

 Veins and Lodes

 Weathering products

 Alluvial deposits

2.a) ***Distinguish between forest and forestry.*** (2 marks)

 A forest is a large tract of land covered by trees while Forestry is the science of developing and managing forests including cultivating them

b) ***Show three factors that influence the distribution of forests.*** (3 marks)

 High temperature causes fast growth of trees while low temperature causes slow growth.

 Dense forests are found on windward slopes of mountains because they are wetter than leeward slopes and they start at a lower level than on the leeward slopes.

 In temperate region slopes facing equator have dense forests because they are warmer

 There are dense forest where there is heavy precipitation while there is less forest cover consisting of stunted trees in areas with little precipitation.

 Deep soils support luxuriant growth of trees while shallow and infertile soils have stunted trees.

3.a) ***What is horticulture?***  (2 marks)

 is intensive cultivation of fruits, vegetables and flowers for sale

 b) ***Give three economic factors that influence agricultural activities.*** (3 marks)

 availability of capital

 market prices of products

 availability of accessible transport facilities

 Competition from other world producers

 Government subsidies on cost of inputs

 Government taxation policy

4.a) ***Name two places where limestone are found in Kenya***. (2 marks)

 Bamburi in Mombasa county

 Athi River in Kajiado county

 Some parts of West Pokot county

 Some parts of Wajir county

 Some parts of Homabay county

b) ***List three uses of soda ash.***  (3 marks)

 Raw material in the manufacture of glasses and bottles

 Manufacture of soap and detergents  Refining of petroleum

 Water softener and treatment works

 De-sulphurizing steel

 Paper making industries

 Textile industries

5.a) ***What is a dead ground?*** (2 marks)

 Is the area/part of a photograph hidden from the view of a camera by an object

b) ***Mention three uses of a photograph.***  (3 marks)

 To show actual objects as they appear in real life

 Vertical aerial photographs are used in drawing maps

 To study physical features and their distribution in an area

 To deduce huma activities, climate and vegetation

 Provides important information on land use and geography of an area

 To ‘bring’ unfamiliar and distant landscapes in a classroom.

 To create awareness and understanding on geographical phenomena

**SECTION B (75 marks)**

***Answer question 6 and any other two questions***

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

 

(a)***(i) Identify the type of photograph shown above***. (1 mark)

  Ground oblique photograph

 (ii)***Describe the characteristics of the forest shown on the photograph.*** (4 marks)

  The forest has mixed species of trees.

 The forest in the foreground is dense/trees are close to each other.

 The forest in the foreground is natural.

 The forest has some shrubs/undergrowth.

 Trees are of different height.

 Some part of the forest has been cleared.

(iii)***Draw a rectangle measuring 15 cm by 10 cm to represent the area by the***

***photograph. On it sketch and label the main features shown on the photograph.***

 (5 marks)

 

(b***)(i) Name two indigenous softwood tree species in Kenya***. (2 marks)

 Podo

 Cedar/Juniper

 African pencil

(ii***)Explain three problems facing forestry in Kenya***. (6 marks)

Rapid population increase has led to encroachment into the forested areas for settlement/agriculture leading to reduction of land under forest cover.

Illegal logging by unlicensed timber merchants have led to depletion of indigenous tree species leading to their extinction.

Prolonged drought have led to death of some tree species.

Attack by pests/diseases have caused the destruction of valuable tree species.

Occurrence of forest fires have led to destruction of large areas under forest cover.

Excision of forest land by the government for settlement/human activities have led to reduction of land under forest cover.

(iii)***State three factors favouring the development of softwood forests in Canada***. (3 marks)

 The cool/cold climate/low temperature.

 Rugged/steep landscape in British Columbia

 Low population density

 Heavy rainfall on the windward slopes of the mountain ranges of British Columbia.  Extensive land in Canada is available for the forest to grow.

(c)***Give four differences between softwood forests in Kenya and Canada.***  (4 marks)

 In Kenya harvesting of trees is done throughout the year while in Canada harvesting is done in winter and early spring.

In Kenya harvesting is done selectively while in Canada clear/indiscriminate cutting of trees is done.

In Kenya forest products are mainly sold locally while in Canada are mainly for export.

Species: Most Kenyan softwoods are exotic while in Canada softwoods are indigenous.

Areas where they are found: Most softwood forests are found mainly in the highlands while in Canada they are found both in the highlands and lowlands

Maturity: Softwoods in Kenya grow faster due to the warm tropical climate while softwoods take longer to reach maturity due to the cool temperate climate.

7***. Study the table below and answer the questions that follow***

 **a) i) Draw a simple pie chart to represent the information above**. (6 marks)

 **Agriculture** 4/100 x 360o = 14.4o  **Aviation** 21/100 x 360o = 75.6o

 **Commerce and industry** 22/100 x 360o = 79.2o **Power** 7/100 x 360o = 25.2o

 **Rail** 6/100 x 360o = 21.6o **Road** 30/100 x 360o = 108o

 **Shipping** 6/100 x 360o = 21.6o  **Others** 4/100 x 360o = 14.4o



ii)***What is the percentage of oil used in transport in the year 2010?*** (2 marks)

Transport sector = aviation + rail + road + Shipping

21 + 6 +30 + 6 = 63%

iii)***Mention two demerits of using the method above to represent data.*** (2 marks)

 Difficult to interpret if segments are many.

 Tedious due to a lot of mathematical calculations and marking out of angles involved.

 Can’t be used to show trend/change over a certain period.

 Small quantities or decimals may not be easily represented.

b) i) ***List three countries where oil is produced in the Middle East.***  (3 marks)

  Saudi Arabia

 Iraq

 United Arab Emirates

 Syria

 Kuwait

 Iran

ii***) Explain three contributions of oil in the* economy of the countries in the Middle East** (6 marks)

✓ It generates a lot of revenue through export and also from royal1es

✓ It creates employment with high income hence raising the standards of living

✓ It s1mulates growth and development of urban centers

✓ It create very rich communi1es such as sheikdoms improving their living standards

c) ***Describe how petroleum oil is formed.***  (6 marks)

✓ Organic materials are transported to lowland and deposited in layers

✓ With time the layers accumulate to form sedimentary rocks

✓ Great heat and pressure is exerted on the rocks changing into petroleum

✓ Eventually petroleum is squeezed out through porous rocks

✓ Oil is then trapped in places between the rocks water and gas may also be trapped in rock layers

8. a) ***Name two wheat growing counties in Kenya*** (2 marks)

 Uasin Gishu

 Nakuru

 Narok

 Laikipia

 Trans Nzoia

 Nyandarua

b) ***State five conditions favouring wheat farming in Kenya.***  (5 marks)

Warm temperatures in growing areas of 15-20◦c at least for three months which promotes growth of wheat and protects it against frost.

Moderate rainfall of 1800-1270mm which promotes growth of wheat.

High altitude of growing areas of 1500-2900m which reduces incidences by high humidity.

 Deep fertile volcanic soils which lead to high production.

 Gently or fairly level land for proper drainage and to allow mechanisation.

 Adequate labour for planting, weeding, application of fertilizers etc.

 Availability of transport facilities such as lorries and tractors to transport grains from the fields to the store and then to buying centres.

c)***Describe wheat farming from planting to harvesting stage.*** (8 marks)

 Land is prepared by ploughing using tractor driven ploughs.

 It’s then hallowed several times to allow weeds and stray wheat grains to be killed in the next harrowing.

 Manure and phosphate fertilizers are applied after the last harrow before sowing.

 Sowing is done using drills that are pulled by tractors or hands.

 Weeding is done by spraying or pulling using hands.

 The crop is regularly inspected for pests and diseases. Harvesting

 Wheat is harvested by cutting heads using sharp knifes for small scale farms or combined harvesters for large scale farms which also threshes the grain.

 The grain is pumped into trucks or tractors which move alongside the harvesters.

 It’s taken to farm stores where it’s passed through driers before it’s packed for sale.

d) ***Give two selling points of wheat in Kenya.*** (2 marks)

 National Cereal and Produce Board

 Wheat millers

 Alcohol breweries

 Bakeries

e) ***Compare wheat farming in Kenya and Canada.***  (8 marks)

 There is mechanization in both countries.

 There are extensive farms in both countries.

 There is a dry sunny spell in both countries.

 Both countries experience the problem of pests and diseases.

 Wheat in both countries is grown in areas with gently sloping terrain.  Wheat growing in both countries is affected by climatic hazards.

 In Kenya wheat is grown in highlands while in Canada it’s grown in lowlands.

 In Kenya wheat is consumed locally while in Canada most of it is for export.

 Kenya experiences wheat shortage while Canada experiences overproduction.

 Canadian farmers specialize while Kenyan farmers carry out mixed farming.

 In Canada all work is mechanized while in Kenya there is usage of human labour.

 Kenya has no incentives such as subsidies such as in Canada.

 In Kenya farming is all year round but Canada experiences winters.  In Kenya farming is carried out on plateaus while in Canada it’s on plains.

 Canada produces more wheat grain than Kenya.

 Kenya grows spring wheat while Canada grows both spring and winter wheat.

9***. a) Discuss nomadic pastoralism in Kenya under the*** ***following sub-headings***

 ***i) The cattle breeds kept***  (2 marks)

 The cattle breeds kept the pastoralists are mainly indigenous breeds such as Zebu and Boran.

 ***ii) The pattern of movement*** (2 marks)

 Their movement is seasonal

 During the dry season the pastoralist migrate with the livestock to the highlands where there is pasture and water.

 During the wet season they move to the plains since pasture is available

  ***iii) Marketing of the animals***  (3 marks)  Some cattle are sold to slaughter houses/to individuals.

 Some pastoralists sell their livestock through community groups.

 Some livestock are sold to the livestock Marketing Department.

 Some pastoralists sell their animals to Kenya Meat Commission.

b)***i) Give three reasons why nomadic pastoralists keep large heads of animals.***  (3 marks)

 It is a form of insurance against natural calamities such as diseases and drought.

 Animals are kept as a sign of wealth/prestige/social status.

 Animals are kept for use to pay dowry.

 Animals are used as a source of food/milk meat and blood.

 ***ii) Explain four measures taken by the government of Kenya to improve beef cattle farming.***  (8 marks)

 It encourages the cross-breeding of traditional cattle breeds with exotic ones. This improves the quality of the animals/cross breeds are more resistant to diseases than

pure exotic breeds.

 It strengthens community education to teach beef cattle farmers better livestock management.

 It sets up demonstration ranches for farmers to learn new trends in livestock management.

 It has constructed roads to make services accessible to farmers/make transportation of animals to markets easier.

 It encourages the replacement of the coarse grass with nutritious pasture to improve the quality of animals.

 It has sunk bore holes/dug wells/constructed dams to provide water for the animals.

 It has revived the Kenya Meat Commission (KMC), a government parastatal that buys animas from farmers for slaughter.

c) ***Give four challenges facing nomadic pastoralism in Kenya***  (4 marks)

 Shortage of water and pasture due to long dry spell.

 Pests and diseases which weaken animals

 Overstocking causing overgrazing leading to severe erosion.

 Lack of extension and veterinary services due to insecurity and constant movement.

 Low levels of education and culture leading to keeping pastures and poor quality animals.

 Poor pastures resulting from poor soils with most areas consisting of tuft grasses and bare land.

 Cattle rustling which causes loss of live and destruction of property.

 Inaccessibility of pastoral areas due to poor roads making the farmers unable to get their animals to the market.

 They rear indigenous cattle such as zebu and boran which mature slowly, yield little milk and have poor quality beef.

 Exploitation by middlemen due to lack of market information.

 Small local market due to sparse population.

 Competition from national parks leading to conflicts.

d) ***Name three indigenous breeds of dairy cattle reared in Kenya.*** (3 marks)

 Zebu

 Boran

 Sahiwal