1) The diagram below shows the angles of the sun's rays at different latitudes when the sun is at the equator.

Use it to answer questions (a) and (b).

(a) Name the parts of the earth's surface marked J and K. (2 marks)

(b) Give two reasons why the intensity of the insolation is higher at M than at N. (2 marks)

2) (a) What is weathering? (2 marks)

(b) Give three factors that influence the rate of weathering. The diagram below shows a composite volcano. (3 marks)

3) (a) What is land breeze? (2 marks)

(b) Give two ways in which sea breezes influence the adjacent land. (2 marks)

4) The diagram below shows ways through which wind transports its load.
(a) Name the three ways labelled E, F and G. 
(b) Name three features produced by wind abrasion in arid areas.

SECTION B

Answer question 6 and any two other questions from this section.

6. Study the map of Nkubu (1:50,000) sheet 122/1 provided and answer the following questions.

(a) (i) Give the latitudinal and longitudinal position of the North East corner of the map extract. 
(ii) Give two methods used to represent relief on the map.
(iii) What is the relief feature found at the top of Kirui Hill within Mt. Kenya forest.
(iv) Apart from administration, give three other services that are provided at Nkubu Divisional Headquarters.

(b) (i) What is the length in kilometers of the all-weather bound surface road from the bridge at Nkubu water works (509935) to the road junction near Gilimbi (509995)?
(ii) State three problems that may be encountered during construction of roads in the area covered by the map.

(c) Citing evidence from the map, give three reasons why cattle rearing is widespread in Nkubu area.

(d) Describe the drainage of the area covered by the map.

7. (a) State three conditions that are necessary for siting a weather station.
(b) Give four reasons why weather forecasting is important.

The table below shows the temperature and rainfall figures for a weather station in Kenya.

Use it to answer question (b) and (c).

<table>
<thead>
<tr>
<th>Month</th>
<th>J</th>
<th>F</th>
<th>M</th>
<th>A</th>
<th>M</th>
<th>J</th>
<th>J</th>
<th>A</th>
<th>S</th>
<th>O</th>
<th>N</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean monthly temperature in °C</td>
<td>16.2</td>
<td>16.5</td>
<td>17.1</td>
<td>17.1</td>
<td>16.1</td>
<td>15.2</td>
<td>15.2</td>
<td>15.0</td>
<td>16.0</td>
<td>16.1</td>
<td>16.1</td>
<td>16.3</td>
</tr>
<tr>
<td>Rainfall (mm)</td>
<td>100</td>
<td>104</td>
<td>175</td>
<td>232</td>
<td>323</td>
<td>218</td>
<td>196</td>
<td>231</td>
<td>196</td>
<td>152</td>
<td>127</td>
<td>71</td>
</tr>
</tbody>
</table>

Source: Kenya Meteorological Department

Calculate:

(i) The mean annual temperature for the station.
(ii) The mean annual rainfall for the station.
(c) (i) On the graph paper provided, draw a bar graph to represent the rainfall figures for the station. Use a vertical scale of 1cm to represent 20mm. 

(ii) Describe the characteristics of the climate experienced at the weather station. 

(d) Suppose you visited a weather station for a field study on weather; 

(i) Give three methods you would use to collect data. 

(ii) State three advantages of studying weather through fieldwork. 

8. The map below shows the location of some mountain ranges. 

(a) Name the ranges marked P, Q, R and S. 

(b) (i) Apart from fold mountains, name three other features resulting from folding. 

(ii) With the aid of labelled diagrams, describe how fold mountains are formed. 

(c) Explain the significance of fold mountains to human activities. 

9 (a) (i) What are tides? 

(ii) Give three causes of ocean currents. 

(iii) Name the three ocean currents along the western coast of Africa. 

(b) (i) State three characteristics of submerged lowland coasts. 

(ii) Explain three factors that determine the rate of coastal erosion. 

(c) With the aid of labelled diagrams, describe the process through which a stack is formed.
10. (a) (i) What is a lake? (2 marks)
(ii) Name two crater lakes in Kenya. (2 marks)

(b) Describe how the following lakes are formed.
(i) corrie lake (4 marks)
(ii) oasis (4 marks)
(iii) lagoon. (4 marks)

(c) (i) Give three reasons why some lakes in Kenya have saline water. (3 marks)
(ii) Explain how each of the following has affected lakes in Kenya:
   deforestation (2 marks)
   industrialization (2 marks)
   water needs. (2 marks)
K.C.S.E GEOGRAPHY 2011
PAPER 2

SECTION A

Answer all the questions in this section.

1) (a) Name two exotic breeds of commercial beef cattle reared in Kenya. (2 marks)

(b) Outline two similarities of commercial beef cattle farming in Kenya and Argentina. (2 marks)

2) (a) Define the term fisheries. (2 marks)

(b) State three ways in which marine fisheries in Kenya can be conserved. (3 marks)

3) (a) Name two prairie provinces of Canada where wheat is grown on a large scale. (2 marks)

(b) Give three physical conditions that favour large scale wheat farming in the prairie provinces of Canada. (3 marks)

4) (a) State three reasons why paper milling industries are located near rivers. (3 marks)

(b) Name three industries in Kenya that use agricultural non-food products as raw materials. (3 marks)

5) (a) State three measures which the government of Kenya has taken to reduce infant mortality. (3 marks)

(b) Give two negative effects of low population growth in a country. (2 marks)

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 shows that this is a ground general-view photograph? (2 marks)

(ii) Draw a rectangle measuring 12 cm by 8 cm. (1 mark)
(iii) On the rectangle, sketch and label the following features shown on the photograph:
   planted crops (1 mark)
   tree stumps (1 mark)
   forest (1 mark)
   felled trees (1 mark)
   the sky. (1 mark)

(iv) Describe the characteristics of the forest shown on the photograph. (5 marks)

(b) Explain four measures being taken by the Government of Kenya to control human encroachment on forested areas. (8 marks)

Give the differences between softwood forests in Kenya and Canada under the following sub headings:

(i) tree harvesting (2 marks)
(ii) marketing of forest products (2 marks)

7. Use the map below to answer question a(i) and (ii).

![Map of Africa with marked rivers and lakes](image)

Name
(i) The rivers marked E, F and G. (3 marks)
(ii) The human-made lakes marked H and J. (2 marks)
(iii) Explain four measures which should be taken to improve inland water transport in Africa. (8 marks)

(b) State four ways in which communication contributes to economic development in Kenya. (4 marks)

(c) Explain four problems facing railway transport in Africa.

8. (a) (i) Give four factors common to Kenya and the Netherlands that have favoured horticultural farming.

(ii) State three features of horticultural farming in the Netherlands. (3 marks)
(b) The table below shows the quantity and value of Kenya's horticultural exports between June 2008 and June 2009. Use it to answer question

<table>
<thead>
<tr>
<th>Month</th>
<th>Quantity (metric tonnes)</th>
<th>Value (Ksh in millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 2008</td>
<td>15,300</td>
<td>3,480</td>
</tr>
<tr>
<td>July</td>
<td>15,600</td>
<td>3,900</td>
</tr>
<tr>
<td>August</td>
<td>14,000</td>
<td>4,000</td>
</tr>
<tr>
<td>September</td>
<td>14,900</td>
<td>3,500</td>
</tr>
<tr>
<td>October</td>
<td>15,600</td>
<td>4,000</td>
</tr>
<tr>
<td>November</td>
<td>14,700</td>
<td>4,020</td>
</tr>
<tr>
<td>December</td>
<td>14,000</td>
<td>4,000</td>
</tr>
<tr>
<td>January 2009</td>
<td>15,900</td>
<td>4,700</td>
</tr>
<tr>
<td>February</td>
<td>16,000</td>
<td>4,100</td>
</tr>
<tr>
<td>March</td>
<td>17,500</td>
<td>4,400</td>
</tr>
<tr>
<td>April</td>
<td>14,900</td>
<td>3,700</td>
</tr>
<tr>
<td>May</td>
<td>15,190</td>
<td>3,800</td>
</tr>
<tr>
<td>June</td>
<td>14,600</td>
<td>3,600</td>
</tr>
</tbody>
</table>

(i) What was Kenya's total value of exports from horticulture between June 2008 and June 2009? (2 marks)

(ii) Comment on the trend of the quantity of Kenya's horticultural exports between June 2008 and June 2009. (3 marks)

(iii) Using the data provided, draw a simple line graph to represent the quantity of Kenya's horticultural exports. Use a vertical scale of 1 cm to represent 500 metric tonnes. (5 marks)

9. (a) What is eco-tourism? (2 marks)

(b) (i) Give four tourist attractions found at the coast of Kenya. (4 marks)

(ii) Slate five problems associated with tourism in Kenya. (5 marks)

(c) State four ways in which game reserves are of benefit to the communities living near them. (4 marks)

(d) Explain the differences between tourism in Kenya and Switzerland. (10 marks)

10(a) Differentiate between a rural settlement and an urban centre. (2 marks)

(b) Explain how the following physical factors influence human settlement:

(i) relief (6 marks)

(ii) climate. (4 marks)

(c) Explain the causes of the following problems in urban centres in Kenya:

(i) traffic congestion (4 marks)

(ii) environmental degradation. (4 marks)
(d)  
(i) Name two towns in Kenya that started as agricultural collection centres.  

(ii) Give three social functions of Kisumu town.